THE JOURNAL OF AIR LAW AND COMMERCE

Volume 13 OCTOBER, 1942 Number 4

LIABILITY OF AIR CARRIERS

*By G. Lloyd Wilson and Walter S. Anderson

Aircraft Operators as Common Carriers

The liability of operators of airplanes in commercial services, carrying property or persons for hire, for personal injury or death of passengers or for loss or damage of property is in the process of development. The courts have rejected as untenable the contention that the novelty of the airplane or the youth of the industry should exclude them from the category of common carriers if they hold themselves out to serve the public for hire.[1] Air transport carriers operating on regular schedules over fixed or definite routes have been held to be subject to the laws applicable to common carriers. The manner in which the aircraft are used determines the character of their operations as common carriers or carriers of other classifications.

In *North American Accident Ins. Co. v. Pitts,* the court applied the general definition of a common carrier sanctioned by long usage in testing the status of an operator of an aircraft,—that of the holding out to serve the general public for hire up to the limit of his facilities. Thus, the court remarked,—"This court, in *Georgia Life Ins. Co. v. Easter,* 189 Ala., 478, 66 So., 514, L. R. A. 1915 C, 456, quoted with approval this definition of a common carrier 'by land or water,' and the words 'or air' might be added after the word water with propriety, since we now have the aeroplane:

* G. Lloyd Wilson, LLL.B., Ph.D., Professor of Transportation and Public Utilities, University of Pennsylvania; and Director, Division of Rates, Office of Defense Transportation; and Walter S. Anderson, A.B. LL.B., Member, New Jersey Bar.

1. *Smith v. O'Donnell,* (5 Pac. (2d) 690), 1931, affirmed in (12 Pac. (2d) 933, 215 Cal. 714), 1932; and see *North American Accident Ins. Co. v. Pitts,* (213 Ala. 102, 104 So. 21), 1925; *Curtiss-Wright Flying Service v. Glose,* (66 Fed. (2d) 710), 1933, certiorari denied (290 U. S. 696), 1933; *Casteel, et al v. American Airways, Inc.,* (261 Ky. 818, 88 S. W. (2d) 976), 1935; Harriman, E. A. *Carriage of Passengers by Air,* (1 J. A. L. 33), 1930.

'The real test whether a man is a common carrier, whether by land or water, therefore, really is whether he has held out that he will, so long as he has room, carry for hire the goods of every person who will bring goods to him to be carried. The test is not whether he is carrying as a public employment or whether he carries to a fixed place, but whether he holds out, either expressly or by a course of conduct, that he will carry for hire, so long as he had room, the goods of all persons indifferently who send him goods to be carried.'

"This court in that case then stated:

'Under this rule a stage coach, a bus, an automobile, or a hackney coach, a cab, dray, cart, wagon, or sled, which undertakes for a reward to carry, indiscriminately, passengers or baggage for the public 'so long as there is room,' is a common carrier.' "[2]

Where the air transport service operators solicit the patronage of the traveling public; advertise their services, schedules and routes; announce rates of fares; publish their baggage regulations; and otherwise call the attention of the public to their services and charges they have been held by the courts to be common carriers. In *Curtiss-Wright Flying Service v. Glose,* action was brought by the widow of a passenger who purchased of the defendant airplane operator a round trip ticket for transportation service by airplane between Miami and Tampa, Florida. The plane was crashed in attempting to make an emergency landing near Tampa. The Federal Court held that the decedent was a passenger and not a charterer of the plane. The arrangement between the operator and the decedent was based on a ticket sold at a fixed price. No undertaking to charter a plane had been discussed by the parties and the service was rendered in the usual course of the operator's business. A standard contract drawn by the operator was signed by the decedent over the printed designation "passenger."[3]

Fixed Routes and Schedules Not Essential Characteristic of Common Carriers

In the same year in which the Glose case was decided, an Illinois court determined that an airplane operating company which offered to transport passengers to any destination, but did not oper-

2. *North American Accident Ins. Co. v. Pitts,* supra; *Curtiss-Wright Flying Service v. Glose,* supra; *Casteel, et al v. American Airways, Inc.,* supra.

3. *Curtiss-Wright Flying Service v. Glose,* supra. And see also *Conklin, Adm. v. Canadian Colonial Airways, Inc.,* (266 N. Y. 244, 194 N. E. 692, 1934 U. S. Av. R. 21, and 1935 U. S. Av. R. 97), 1935.

ate over fixed routes or upon set schedules, and based its rates not upon a point to point basis but upon a mileage basis of rates, was liable as a common carrier for the death of a passenger resulting from the negligent operation of the aircraft.[4] In *Ziser v. Colonial Western Airways, Inc.*, a New Jersey court held an air transport operator liable as a common carrier for the consequences of the negligent operation of an airplane used in sight-seeing service. The company offered its facilities at the airport for sight-seeing trips and accepted all applicants for the service excepting persons obnoxious, because of intoxication or otherwise. The court regarded the operator as a common carrier although it had on many occasions rejected persons who were objectionable for such reasons, and some times required prospective passengers to leave the plane to make room for large parties. The court ruled that a set schedule was not a requisite in establishing the common carrier status.[5]

In the previous year, a California court, in *Smith v. O'Donnell,* cited above, determined that an aircraft operator may be a common carrier and liable as such although the aircraft are operated in circular service returning to the point of departure without landing en route.[6]

Upon the basis of the cases decided, it may be stated that the courts, in determining whether or not the operator of an airplane service is a common carrier, follow the definitions of common carriers of long usage in other forms of transport. They find to be common carriers of passengers by air transport those who undertake for hire to carry all persons, indifferently, who may apply for passage, so long as there is room and there is no legal excuse for refusing.[7]

Excuses for Refusing Passengers

An operator of air transportation service may avail himself of a number of legal excuses for excluding prospective passengers. Thus persons may be refused who are objectionable to the operator because of improper conduct, drunkenness or noisiness.[8] If he avails himself of these legal excuses to refuse accom-

4. *McCusker v. Curtiss-Wright Flying Service,* (269 Ill. App. 502, 1933 U. S. Av. R. 105), 1933.

5. *Ziser v. Colonial Western Airways, Inc.,* (10 N. J. Misc. R. 1118, 162 A 591, 1933 U. S. Av. R. 1), 1932.

6. (5 Pac. (2d) 690), affirmed (12 Pac. (2d) 933), 1932.

7. (4 R. C. L., 1000, §468); *Jackson Architectural Iron Works v. Hurlbut, et al,* (158 N. Y. 34, 52 N. E. 665), 1899; and see *Terminal Taxicab Co. v. Kutz,* (241 U. S. 252), 1915, in which the court held that it is what a carrier elects in fact to do and not what it purports by words to be that governs its status as a common carrier.

8. *State of Maryland, ex rel. Beall v. McLeod, et al,* (1932 U. S. Av. R. 94), 1932 (Md. Super. Ct.); *Ziser v. Colonial Western Airways, supra.*

modations, or to exclude passengers the operator is none the less a common carrier, if his service is offered to the general public.

In *Law v. Transcontinental Air Transport, Inc.*, a Federal District Court held that an airplane operator could refuse to transport an overload or refuse to transport passengers in bad weather without altering its status from that of a common carrier to that of a private carrier.[9]

The Court of Appeals of Kentucky, in 1935, in *Casteel, et al v. American Airways, Inc.*, affirmed the judgment of a lower court for the defendant air operator in a suit for damages for the impairment of the health, humiliation, exposure and mental and physical distress and discomfort of two of its passengers. In that case a patron who was known to be suffering with tuberculosis, and his wife, engaged transportation by airplane from El Paso, Texas, to Louisville, Kentucky. At Fort Worth, Texas, the ill passenger was examined by a physician at the instance of the air transportation company. The physician advised that the passenger should not continue his trip by plane. Over the protests of himself and his wife, he was excluded from the plane. The defendant air transport company arranged for first-class hotel accommodations and for transportation of the passengers by rail to their destination. The railroad fares were paid from the refund due the passengers for the unused portions of the air carrier's tickets. The trip was completed by railroad and the ill passenger died within a week after arrival at Louisville.

In its decision, the Court said, inter alia:

"Although the same principles must obtain and be applied, the law of aeronautics cannot be completely synchronized with the law pertaining to other agencies, for it must be modified to meet the traffic problems of the novel method. The inherent nature of the facilities of an airplane cannot be disregarded. . . .

". . . Although the safety of the passengers, individually and collectively, must ever be regarded as the prime criterion, provision for their convenience and comfort is more essential aboard an airplane in flight with its restrictions and limitations of space than on surface carriers where passengers may move about with some degree of freedom. The right to reject or eject passengers from an airplane must be sustained not only upon grounds deemed justifiable where older methods of carriage are

9. (1931 U. S. Av. R. 205), 1931.

used, but other reasonable grounds as well because of the necessarily close personal proximity of the passengers."[10]

The Purpose of the Flight as a Criterion of the Air Carrier's Status

The decisions of the courts in cases where the status and liability of the airplane operator as a common or private carrier has been considered, in relation to the purpose of the flights, are not reconcilable. In *Ziser v. Colonial Airways, Inc.*, and *Smith v. O'Donnell*, both cited above, the courts held that the lack of a fixed schedule, and the operations of planes without landing at points other than the places where the flights started, were not factors which negatived the common carrier status of such operations, if other characteristics of common carriage were present.[11]

In suits brought upon policies of insurance covering persons killed in airplane accidents, the courts have held that an operator engaged in taking persons for ten minute pleasure flights over a summer resort was not a common carrier. In two cases brought in different courts upon separate insurance policies, both covering a person killed during such a flight, the courts held that an operator engaged in sight-seeing or pleasure-hop service, who operates on such days and at hours and under conditions determined by him; who did not make flights with less than three nor more than five persons; and who accepted only white persons, was not a common carrier. Both courts stressed the facts that the flights were made only upon special arrangements and that the operator assumed no obligation to serve all who applied for such transportation.[12] The courts of Illinois[13] and New York[14] have also decided that the operators of this type of flying service are not to be treated as common carriers.

Degree of Care Required

It has generally been held by the courts that common carriers of passengers must exercise the highest degree of care, vigilance and caution. In seeking to measure the quantum of such care the courts have usually distinguished between the standards required of com-

10. (261 Ky. 818, 88 S. W. (2d) 976), 1935.
11. (10 N. J. Misc. R. 1118, 162 A. 591), 1932; and (5 Pac. (2d) 690), affirmed (12 Pac. (2d) 933, 215 Cal. 714), 1932.
12. *Brown v. Pacific Mutual Life Ins. Co.*, (8 F. (2d) 996), 1925; *North American Accident Ins. Co. v. Pitts*, (213 Ala. 102, 104 So. 21), 1925.
13. *Bird, Adm. v. Lauer*, (272 Ill. App. 522, 1934 U. S. Av. R. 188), 1933.
14. *Seaman v. Curtiss Flying Service, Inc.*, (1929 U. S. Av. R. 48), 1929, reversed on other grounds (231 App. Div. 867, 247 N. Y. S. 251, 1931 U. S. Av. R. 227), 1930; and see *Stoll v. Curtiss-Wright Flying Service, Inc.*, (1930 U. S. Av. R. 148), 1930, affirmed without opinion (236 App. Div. 664, 257 N. Y. S. 1010, 1932 U. S. Av. R. 163), 1932.

mon carriers and those imposed by law upon private or contract carriers. The Supreme Court of Massachusetts, in *Wilson v. Colonial Air Transport, Inc.*, stated the rule: "It is settled that the degree of care (required) of a common carrier for hire is measurably greater than the law imposes on a private carrier for hire, and it would seem that the proof of the facts and surrounding circumstances need only be slight in order to set up the presumptive rule of negligence and call upon the defendant for an explanation; and that in either case negligence will not be presumed from the mere happening of an accident."[15]

The courts have usually given due regard to the characteristics of the instrumentality of transportation used, in the application of these rules of law to the duty owed by carriers to their patrons. Trial courts in a number of jurisdictions have included in their instructions to the juries the statement that carriers by air are charged with the highest degree of care in the safeguarding of their passengers, consistent with the practical operation of the plane.[16]

Common carriers by aircraft, although required to use utmost care and diligence, have been held not to be required "to exercise all the care, skill and diligence of which the human mind can conceive, nor such as will free the transportation of passengers from all possible perils."[17] Thus a carrier was held not liable for damages resulting from an accident caused by a crash during a fog, in the absence of negligence on the part of the carrier. The passenger by airplane was held to have assumed all the usual and ordinary perils incident to airplane travel that exist over and above the dangers against which the common carrier is under a legal responsibility to guard.[18] However, in *Greunke v. North American Airways Co.*, the court held the carrier liable for only ordinary care.[19]

More particularly, it has been ruled that the pilot of a plane, as an agent of a common carrier, is required to guard and provide against predictable conditions in discharging the carrier's legal duty to its passengers. He is not held accountable for dif-

15. (278 Mass. 420, 180 N. E. 212), 1932.

16. *Foot, et al v. Northwest Airways, Inc.*, (1931 U. S. Av. R. 66), 1930 (U. S. Dist. Ct. Minn.); *Hamilton v. O'Toole*, (1927 U. S. Av. R. 133), 1927 (Mass.); *Berg v. Seitz*, (1931 U. S. Av. R. 111), 1931 (Kans.); *McCusker v. Curtiss-Wright Flying Service, Inc.*, (269 Ill. App. 502), 1933; *Law. v. Transcontinental Air Transport*, (1931 U. S. Av. R. 205), 1931 (U. S. District Court, E. D. Pa.); and *Wilson v. Colonial Air Transport, Inc.*, (278 Mass. 420, 180 N. E. 212), 1932.

17. See instructions by court in *Allison, Adm. v. Standard Air Lines, Inc.*, (1930 U. S. Av. R. 292), 1930 (U. S. Dis. Ct., S. D. Cal.), affirmed in (65 F. (2d) 668, 1933 U. S. Av. R. 92), 1933.

18. *Allison, Adm. v. Standard Air Lines, Inc.*, supra.

19. (1930 U. S. Av. R. 126), 1930.

ficulties which result when unexpected events occur. He is not charged with responsibility if accidents are caused by gusts of wind, sudden snow squalls, fogs, rain or similar unforeseen conditions, unless he has been negligent in assuming that such conditions were not to be encountered.[20] "In an aeroplane accident the limitation of responsibility may be said to consist of a plane in good mechanical condition, handled by a careful pilot, maneuvered in a careful way under conditions that, so far as can be foreseen, are normal, or such as may be foreseen and overcome by the use of ordinary skill, such as unfavorable weather conditions, so that the ordinary pilot could observe them as such."[21]

Although its juridical import is somewhat lessened by the fact that the decision of the court was governed by the code law of California, the determination reached in the suit resulting from the crash of the Western Air Express plane, on which Martin E. Johnson and Osa Johnson were passengers, in 1937, is indicative of the extent of the carrier's responsibility when mishaps occur because of unusual conditions. The famous couple had engaged passage from Salt Lake City to Burbank. The plane proceeded from Salt Lake City to Las Vegas by contact flying. At Las Vegas the pilot was directed to proceed to Daggett, California, where he would receive further instructions from defendant's chief dispatcher at Burbank. Upon arriving at Daggett, the pilot communicated by radio with the ground station at Burbank and requested instrument clearance into Burbank. He was authorized to follow the "procedure to land down through with aid of radio range." In executing the procedure the pilot was able to maintain his course until he had passed what is known as the cone of silence at Saugus for the second time. However, when he had passed it the first time, he had encountered ice which had caused the ship to toss, roll and vibrate. The pilot testified that he at that time had given the co-pilot instructions to turn on the deicers. The latter did not do so and the pilot was admittedly aware of the fact. After passing the cone of silence the second time the ship started to lose altitude. The pilot then switched off his radio from the Saugus station beam, and depended upon an average compass reading to guide him in his course. His explanation for this was that the ship began to toss and roll so violently that he had to do it. After leaving the cone of silence for the second time and while en route from Saugus to Burbank the plane went ap-

20. See instructions by court in *Law v. Transcontinental Air Transport*, supra.

21. See instructions by court in *Seaman v. Curtiss Flying Service, Inc.*, supra.

proximately three miles off its course to the left. While the pilot was attempting to regain his position on the course the plane crashed on Los Pinetos peak in the San Gabriel mountains.

Action was commenced by Osa Johnson for the injuries she sustained as the result of the crash and for the wrongful death of her husband. The jury returned verdicts for the defendants, and on appeal, the plaintiffs urged as a reason for reversal that the evidence was insufficient to justify the verdicts, in that undisputed negligence, constituting the proximate cause of the accident, was admitted upon or by the pilot and others and that the affirmative defense of Western Air Express that the accident occurred because of an act of God was not established by the defendants.

In dismissing the appeal the court held it to be "a question of fact for the jury to determine, and not a question of law, whether the pilot was guilty of negligence in abandoning the Saugus beam and flying on an average compass reading, and in consideration of this question they were entitled to consider that during all of his difficulties the pilot was trying to hold to a compass course of 125 degrees, because, as he testified, he knew that was the compass course which would lead to the Burbank airport."

Continuing, the court said:

"Whether the failure of the pilot to do the exact things provided in the 'procedure to land down through with aid of radio range' was a proximate cause of the accident was a question of fact for the jury to determine in the light of existing conditions. Respondent Western Air Express concedes that if conditions had been normal and Pilot Lewis had been able to follow each step of the 'procedure' and had simply failed to do so, with the resultant crash and no explanation for its occurrence, there would be no question whatsoever but that the accident was due to the negligence of the pilot, but respondent contends, and its contention must be upheld, that it was for the jury to determine whether the pilot, in the exercise of the highest degree of care, was unable to do the things required by the 'procedure' because of an act of God (Civil Code, §3526); and further, that it was within the province of the jury to conclude that the pilot's failure to remain tuned to a beam under the facts and circumstances present was not the proximate cause of the crash and that unusual conditions of icing and turbulence were such that the pilot could not have

followed a beam because the combination of ice in the carburetors and extreme air turbulence made it impossible for the pilot to control the plane either as to course or altitude. The testimony of both the pilot and plaintiff Mrs. Johnson herself furnished grounds upon which the jury could predicate a finding that the disaster occurred by reason of the unusual forces of nature, and was one which could not have been reasonably anticipated, guarded against or resisted; that the crash was occasioned by the violence of the elements alone, and that the agency of men had nothing to do therewith."[22]

In *Seaman v. Curtiss Flying Service, Inc.,* action was commenced for the wrongful death of plaintiff's decedent caused by the crash of an airplane in which the deceased was a passenger. It was conceded at the trial that there were no mechanical defects in the plane. The proof established that the weather was clear on the day of the accident and that there was a wind blowing from the northwest at a velocity of not more than fifteen miles an hour. Testimony was also offered that just before the plane crashed it was seen to turn and dip its right wing. In charging the jury the trial court submitted the question "whether this particular accident was caused by the negligent act of the pilot, or whether it was caused by some outside force over which he had no control. That is, whether it was due to an act of God or atmospheric conditions due to a wind and change of temperature which is known as an unavoidable accident."

In setting aside the determination of the lower court, the Appellate Division, after commenting upon the omission of the lower court to include in its charge any exposition of the law as to what constituted an act of God which would in a proper case excuse the defendant carrier, stated:

> "the doctrine of *vis major,* introduced into the situation by the court in its charge, had no application to the testimony adduced upon the trial contained in this record."[23]

That the air carrier is bound to exercise ordinary precaution for the safety of its passengers and to protect them against harm which can be anticipated, either while aloft or on the ground, is demonstrated in *Curtiss-Wright Flying Service, Inc. v. Williamson.* In that case a Texas court affirmed judgment for plaintiff in an action in which plaintiff's decedent, in alighting from the plane walked toward

22. *Johnson, et al v. Western Air Express Corporation, et al,* (114 Pac. (2d) 688), 1941

23. (231 App. Div. 867, 247 N. Y. S. 251, 1931, U. S. Av. R. 227), 1930, reversing (1929 U. S. Av. R. 48), 1929.

the front of the craft and sustained fatal injuries by coming in contact with the propeller which had continued to revolve, the motors not having been cut off when the plane landed. The court held that the appellant owed to the deceased, as a passenger upon its plane, "the exercise of that high degree of care for his safety which under the settled rules of law apply under such circumstances. It was appellant's duty to furnish," appellant's passenger, "a safe place to alight and a safe egress from its plane to the hangar where he desired to go. If for any reason it was unsafe to appellant's passenger for the plane to be stopped opposite the hangar and facing north, the issue of negligence in so doing was one of fact for the jury."[24]

General Rule of Proof

The mere occurrence of an accident per se does not raise a presumption of negligence on the part of a common carrier by airplane, despite the fact that the carrier is charged with the duty of exercising the highest degree of care in protecting its passengers. The same general rule of proof governs in cases of airplane accidents as in suits against other types of common carriers excepting when the doctrine of *res ipsa loquitur* is applied.

The general rule applicable in suits against carriers for injuries or other damage alleged to have been caused by the carrier's negligence is that the party who alleges the existence of a fact as the basis of a cause of accident must bear the burden of establishing it by proof. The gist of the cause of action is the carrier's negligence and the burden of proving the negligence and that it was the proximate cause of the injury or damage rests upon the plaintiff who alleges it.[25]

Application of Res Ipsa Loquitur

The doctrine of *res ipsa loquitur* may be stated as asserting "that whenever a thing which produced an injury is shown to have been under the control and management of the defendant, and the occurrence is such as in the ordinary course of events does not happen if due care has been exercised, the fact of injury itself will be deemed to afford sufficient evidence to support a recovery" by the plaintiff, "in the absence of any explanation by the defendant tending to show that the injury was not due to his want of care. * * * The presump-

24. (51 S. W. (2d) 1047), 1932, affirming *Williamson v. Curtiss-Wright Flying Service* (1931 U. S. Av. R. 1191), 1931, (Tex. D. C., 14th Judicial Dist. Dallas County). See also *Berg v. Seitz*, supra, and per contra, *Hough v. Curtiss Flying Service, Inc.*, (1929 U. S. Av. R. 99), 1929, (Maine).

25. (5 R. C. L. 74, 75, §712), *Allison, Adm. v. Standard Air Lines, Inc.*, supra, and *Stoll v. Curtiss Flying Service*, supra

tion of negligence herein considered, is, of course, a rebuttable presumption. It imports merely that the plaintiff has made out a prima facie case which entitles him to a favorable finding unless the defendant introduces evidence to meet and offset its effect . . . Where all the facts attending the injury are disclosed by the evidence, and nothing is left to inference, no presumption can be indulged—the doctrine of *res ipsa loquitur* has no application."[26]

The application of the doctrine to cases arising out of aircraft accidents has not yet been sufficiently extensive to warrant a valid statement of the principles or limitation of such application.

Wilson v. Colonial Air Transport was an action brought in the courts of Massachusetts for injuries sustained by an airline passenger in a crash alleged to have been caused by one of the motors "going dead" a few seconds after the plane had taken off. The plaintiff who sustained the damages testified that the right-wing motor back-fired after he had entered the plane and while the plane was taxying to the take-off position. He testified, moreover, that he could see that the right-wing motor did not revolve at the same speed as the others when the pilot "revved" them. A few seconds after the plane had left the ground the right-wing motor went dead, the right side of the plane tipped, and the plane went into a nose-dive despite the "frantic efforts of the pilot" to right it.

Defendant offered testimony of the pilot of the plane that it was in good working order on a previous trip from New York to Boston, and that he had turned the plane over to inspectors upon arrival at Boston. Pilot testified that the slower "revving" of the right-wing motor was done deliberately by him in order to steer the plane on the ground, that the motors were tested before the take-off, and that they were running at the same speed on leaving the ground.

The court denied the applicability of the doctrine of *res ipsa loquitur* on the basis of this evidence, and stated, in part.

> "The principal of *res ipsa loquitur* only applies where the direct cause of the accident and so much of the surrounding circumstances as were essential to its occurrence were within the sole control of the defendants or of their servants. * * * It is also to be observed that the doctrine will not be applied if there is any other reasonable or probable cause from which it might be inferred there was no negligence at all; nor does it apply in any instance where the agency causing the accident is

26. (20 R. C. L. 185-188, §156), and Fike, L. R., *Air Transport Protection*, (8 Air Law Review 316-333), 1937.

not under the sole and exclusive control of the person sought to be charged with the injury."[27]

The inspectors to whom the plane was turned over upon landing at Boston were not shown by the testimony to be the employees or agents of the defendant airline. It was to this that the court referred in its qualification cited above.

In the New York case of *Goodheart v. American Air Lines, Inc.*, damages were sought for the death of a passenger, alleged to have resulted from an accident caused by the negligence of the defendant airline in which the plane crashed on a mountainside. The plaintiff alleged that the pilot of the plane was negligent in that, among other things, he deviated many miles from the safe course which he was directed to follow, flew at an unsafe altitude, carelessly and without necessity, in order to avoid extra mileage, and offered proof to sustain these allegations.

The trial court admitted the evidence and submitted the case to the jury on the theory of *res ipsa loquitur*. Judgment was for the plaintiff. On appeal, the Appellate Division reversed the judgment of the court below and stated that the submission of the case to the jury on the *res ipsa loquitur* theory clearly was error. It cited an earlier decision in which a *res ipsa loquitur* problem was presented, stating:

> "The doctrine of *res ipsa loquitur*, although it provides a substitute for direct proof of negligence where plaintiff is unable to point out the specific act of negligence which caused his injury, is a rule of necessity to be invoked only when, under the circumstances involved, direct evidence is absent and not readily available."[28]

In applying this rule to the case appealed, the Appellate Division stated in part:

> "Here, the plaintiff did not reply on the presumption arising from the doctrine of *res ipsa loquitur*. On the contrary, he pleaded and introduced evidence to establish specific acts of negligence which, he alleged, resulted in the accident. Under these circumstances, the doctrine did not apply."[29]

In *Conklin v. Curtiss Flying Service, Inc.*, a New Jersey trial court, in an action at law resulting from the crash of a plane alleged

27. *Wilson v. Colonial Air Transport, Inc.*, supra.

28. Citing *Witcher v. Board of Education, Rensselaer,* (233 App. Div. 184, 251 N. Y. S., 611, 612), 1931.

29. *Goodheart v. American Air Lines, Inc.* (252 App. Div. 660, 1 N. Y. S. (2d) 288), 1938.

to have been due to the stopping of the motors during flight, instructed the jury that there was no obligation on the part of the air transport carrier to explain what actually caused the accident, but that it was the plaintiff's duty to prove negligence by a fair preponderance of the evidence.[30]

A contrary view was expressed by the New York Appellate Division in *Seaman v. Curtiss Flying Service, Inc.,* which has been discussed above.[31] From the court's opinion it is not evident that the plaintiff offered any testimony as to the cause of the crash, but that the theory was advanced that the mishap was the result of the negligent act of an over-confident pilot making a sharp turn at too steep a bank at an altitude and at a place where it was reasonably to be expected that upper currents of air might tip the wing of the plane, thereby exposing its passengers to danger. In setting aside the verdict of the court below, the court said:

> "The charge was likewise prejudicial, in its failure to charge the doctrine of *res ipsa loquitur,* which had, under the facts appearing in this record, application to this case as a rule of evidence to aid the jury in passing upon the issue of liability."[32]

During one of the trials had in *Stoll, Adm. v. Curtiss Flying Service, Inc.,* a New York trial court instructed the jury that it should take into consideration the *res ipsa loquitur* doctrine, in weighing the evidence, if no proof was offered in support of any allegation that the accident occurred through the defendant's negligence.[33]

In *Smith v. O'Donnell,* cited above, the court was called upon to determine whether or not the *res ipsa loquitur* doctrine could be resorted to by the plaintiff in an action involving the crash of aircraft in mid air. The court remarked that since such a mishap does not ordinarily occur if the proper degree of care is used the doctrine was properly submitted to the jury.[34]

In *Cohn v. United Air Lines Transport Corporation,* action was commenced by an administratrix to recover damages on account of the death of her intestate resulting from the crash of an airplane while on a test flight. The facts of the case did not involve the liability of a common carrier of passengers, but the determination of the court with respect to the same is of interest here in relation to the application of the *res ipsa loquitur* doctrine. The plaintiff alleged

30. (1930 U. S. Av. R. 188), 1930.
31. Page 12, ante.
32. *Seaman v. Curtiss Flying Service, Inc.,* supra.
33. *Stoll, Adm. v. Curtiss Flying Service, Inc.,* supra.
34. *Smith v. O'Donnell,* supra.

negligence of the defendant generally, but set forth no specific acts of negligence and relied entirely on the *res ipsa loquitur* doctrine in establishing her right to recovery. In its opinion, the court made the following remarks: "The doctrine has a somewhat limited application, making it, as it were, a sort of refuge of last resort for the relief of injured persons where specific acts of negligence are incapable of being alleged and proved by the ordinary methods." After mentioning a few of the unavoidable causes for crashes of airplanes, the court then determined the doctrine could not apply "if there is any other reasonable or probable cause from which it might be inferred that there was no negligence at all."[35]

This court also made the observation that there existed no widespread fund of information as to the operation, care and characteristics of airplanes, such as is available relating to trolleys and steam railroads, to justify the application of the *res ipsa loquitur* doctrine.

Courts of Texas and California, and a Federal Court, have held that if an injured party or a representative of a decedent alleges specific acts of negligence on the part of the defendant carriers, he may not then avoid the burden of proving the carrier's negligence by relying upon the doctrine of *res ipsa loquitur* to raise a presumption of negligence on the part of the defendant carrier.[36]

What Risks Does An Airplane Passenger Assume?

It has now become well established as a principle of law that an airplane passenger may be held to have assumed all the ordinary and usual perils incident to this mode of travel.[37]

Airplane passengers do not assume the risks that the planes may be "improperly, carelessly or negligently operated."[38] Nor do they take upon themselves the risk of any defects in the construction of the planes or the adjustments of the planes not patent to them when they enter the planes.[39]

They do, however, assume dangers which cannot be averted by the carriers by the exercise of the degree of care which the law

35. *Cohn v. United Air Lines Transport Corporation* (17 F. Supp. 865), 1937 (U. S. Dist Ct., D. Wyo.).

36. *English v. Miller* (42 S. W. (2d) 642), 1931; *Johnson et al v. Western Air Express Corporation, et al*, supra; and *Law v. Transcontinental Air Transport*, supra.

37. See instructions by court in *Allison, Adm. v. Standard Air Lines, Inc.*, supra, and *Wilson v. Colonial Air Transport, Inc.*, supra.

38. See instructions by court in *Law v. Transcontinental Air Transport, Inc.*, supra, and instructions by court in *Stoll, Adm. v. Curtiss Flying Service, Inc.*, supra.

39. *State of Maryland ex rel. Beall v. McLeod*, supra.

requires.[40] Thus airplane passengers have been held to assume the risk involved in the sudden occurrence of storms, the dangers incident to navigation through storms, and landing, provided the pilots have not been negligent in the manner of handling the plane under the unexpected circumstances.[41]

In *Cohn v. United Air Lines Transport Corporation,* cited above, the court after making its observation as to the applicability of the *res ipsa loquitur* doctrine, stated the following:

> "Man has made rapid srides within a very small cycle in his endeavor to become master of the air, * * *, but with the exceedingly large number of unexplained and inexplicable catastrophies it is evident that he has not yet become such master. It will not do to discourage the pioneer by making him assume undue hazards in a monetary way. In the meantime it is quite evident that those who choose air-ways for transportation must in many instances be held to have themselves assumed the risk."[42]

Contractual Limitations of Carriers' Liability for Negligence

The courts of the United States have generally accepted the rule that provisions in contracts of transportation, between air lines and their passengers, recited in tickets or otherwise, exempting airplane carriers for hire from liability for loss or damage suffered by their passengers arising from the negligence of the carriers or their servants are unavailing to relieve the carriers from responsibility because they are contrary to public policy.

In *Law v. Transcontinental Air Transport, Inc.,* the trial court in charging the jury intimated strongly that the fact that a ticket issued to the passenger contained a statement that the air transport company was not a common carrier was not controlling in determining the carrier's status and that the jury might properly find the defendant to be a common carrier. The court explained that the status was to be ascertained not by the ticket's stipulation but by what the carrier held itself out to be.[42a] Likewise, a stipulation in the carrier's ticket that the carrier was not to be liable for its negligence, or that its liability was to be limited, has been held to give the carriers no immunity for the consequences of their negligence.[43]

40. See instructions by court in *Allison, Adm. v. Standard Air Lines, Inc.,* supra.

41. See instructions by court in *Law v. Continental Air Transport, Inc.,* supra.

42. *Cohn v. United Air Lines Transport Corporation,* supra.

42a. *Law v. Transcontinental Air Transport, Inc.,* supra.

43. *Curtiss-Wright Flying Service v. Glose,* supra.

In *Conklin v. Colonial Airways, Inc.*, the air line offered three trips or classes of tickets to prospective passengers. Class A tickets provided for a $5,000 maximum liability for death or injury of passengers, Class B for a $10,000 maximum liability, and Class C ticket for a maximum of $15,000 liability. Under New York law passenger carriers may lawfully offer passengers their choice between full common carrier liability and limited liability, provided the passengers are given consideration in the form of reduction in rates if they voluntarily choose transportation subject to limited liability. In this case, however, the court held that the passenger had not been given a voluntary choice between full and limited liability, and, for this reason, the stipulation appearing in the ticket, held by the plaintiff's decedent, did not serve to prevent recovery in an amount in excess of the amount designated on the ticket.[44]

Under English law, carriers of passenger by air may by special contracts limit their liability even when the loss or damage suffered by the passengers is caused by the carrier's negligence.[45]

Generally, under American decisions, attempts to limit or avoid liability by camouflage of words in tickets or contracts are unavailing to relieve a common carrier of its obligations as such.[46]

In *Noakes v. Imperial Airways, Ltd., et al*, a libel was filed by the widow of a passenger who was killed in the crash of the flying boat Cavalier, which fell while en route from New York to Bermuda. Respondent contended the Cavalier was a "vessel" within the definition contained in (R. S. §3, 1 U. S. C. §3, 1 U. S. C. A. §3) and therefore entitled to the benefit of the limitation of liability statutes which preclude recovery beyond the amount or value of the interest of the owner in the vessel and its pending freight. (R. S. §4283-4289, 46 U. S. C. §183 et seq., 46 U. S. C. A. §183 et seq.) The Federal District Court of the Southern District of New York did not agree with this contention and had the following to say: "It seems to me that the Cavalier in the progress of her flight through the air as she was at the time the occurrence complained of was alleged to have taken place, cannot be classified as a 'vessel' such as the statutes and laws relating to vessels are intended to include. The trend of the statutes and the courts is to treat aviation as *sui generis*."[47]

---

44. *Conklin v. Canadian Colonial Airways, Inc.*, supra.

45. (5 R. C. L., 8, § 665).

46. Edmunds, J. K., *Aircraft Passenger Ticket Contracts*, (1 J. A. L. 321), 1930; and Zollman, Carl, *Aircraft Carriers as Common Carriers*, (1 J. A. L. 190), 1930.

47. (29 F. Supp. 412), 1939. See also *Dollins v. Pan American-Grace Airways, Inc.*, (27 F. Supp. 487), 1939; *The Crawford Bros. No. 2*, (215 F. 269, 271), 1914; *Ashel E. Reinhardt v. Newport Flying Service Corporation, et al*, (232 N. Y. 115, 133 N. E. 371, 18 A. L. R. 1324), 1921, and *United States v. Northwest Air Service*, (88 F. (2d) 804), 1935.

Liability of Airplane Carriers of Property

Common carriers of goods by all means of transport have been held generally liable for loss or damage of goods entrusted to them for transportation and responsible for their safe transportation and proper delivery to the consignee except for loss or damage occasioned by acts of God, of the public enemy or other excuses for failure to transport or deliver recognized by the common law or applicable statutory law.[48] Common carriers of goods by airplane are logically subject to the same general rule and are under the duty of exercising reasonable care and skill in making their planes fit and safe for the carriage of the goods transported and of transporting the goods with reasonable care. Like other common carriers of goods, airplane carriers apparently may not avoid or limit their liability for loss suffered as the consequence of the carrier's negligence or that of their servants.

The Railway Express Agency, Inc., in the conduct of its air express service, transports goods in interstate commerce upon air express receipts,—a species of bill of lading contract, which provides, —like the uniform express contract used in the railway express service on land and water routes,—that the liability of the carrier is limited, in consideration of the rate charged for the transportation service, which is dependent upon the value of the property, and is based upon an agreed valuation of not exceeding $50.00 for any shipment of 100 pounds or less, and not exceeding 50c per pound, actual weight, for any shipment in excess of $100.00, unless a greater value is stated in the air service uniform express receipt. Unless a greater value is declared and stated in the receipt, the shipper agrees that the value of the air express shipment is so limited and that the liability of the express carrier shall in no event exceed this value.[49] The air service uniform express receipt provides that the Railway Express Agency, Inc., will not be liable, unless caused by its own negligence or that of its agents, for loss or damage occurring through natural shrinkage or evaporation or loss due to defects in or the nature of the goods, escape of live stock, loss of articles of extraordinary value unless enumerated in the express receipt, act or default of the shipper or owner, improper packing, acts of God, public enemy acts, authority of the law, quarantine, strikes, riots, hazards of state of war, occurrences at custom's warehouse, exam-

48. (4 R. C. L. 696, § 175), Interstate Commerce Act, Parts I, II and III.

49. Air Service Uniform Express Receipt, Terms and Conditions, Paragraph 2, Supplement 3, Air Express Division Tariff No. 7, C. A. B. No. 7. See also *Express Cases*, (117 U. S. 1), 1885, for discussion of status of express carriers generally.

ination or partial delivery to consignees of C. O. D. shipments, or delivery under instructions of consignor to consignee at non-agency station after shipments have been left at these stations.[50]

In *Aslan v. Imperial Airways, Ltd.*, an English Court held that recovery by an owner of a shipment of gold was precluded by the terms and conditions of the contract of carriage under which the goods were transported. The contract contained, among other provisions, stipulations that the air transport company was not a common carrier, that it reserved the right to refuse to accept any goods offered for carriage, that the goods were accepted for transportation only at the sender's risk, and that the air transport company accepted no liability for loss suffered with respect to the goods.

The court observed that the defendant air lines had not expressed willingness to transport goods for all, without discrimination, and was, therefore, not a common carrier of goods, and the sender was precluded from recovery by these terms of the contract of transport. Its opinion indicated, however, that common carriers of airplane were subject to the common law liability of common carriers for goods accepted by them for transportation and delivery.[51]

It would appear from this decision that the court in declaring the air carrier a private (or contract) carrier, considered as conclusive the carrier's words in its contract, wherein it disclaimed willingness to carry for the public indiscriminately. Other attempts by carriers to escape common carrier liability by statements of this sort generally have been unsuccessful, and the court in this case would have been on sounder ground had it examined the facts of the carrier's operation rather than to have relied to the extent it evidently did upon its contractual definitions of its status.

In a note in the University of Pennsylvania Law Review, the editor sharply criticizes this decision for the reliance of the court upon the wording of the carrier's contract rather than upon the character of its operations. "The court would have done well to attach a minimum significance to the words used, and to inspect carefully instead the actual character of the defendant's business operations in determining the company's status. Thus the fact that the company was organized for the very purpose of offering an air transportation service, that it published regular tariffs for carriage over established routes, are considerations present in the instant case, but neglected

50. Ibid, paragraphs 3 and 4. So far as can be discovered by these writers, no cases have come before the courts involving the liability or limitations of the liability of the air express division of the Railway Express Agency.

51. (149 L. T. 276), 1933.

by the court, leading to the inference of an intention to serve all who should apply."[52] The decision is open to further criticism in that it gave validity to a contract denying all liability, although the decisions are uniform in permitting carriers to limit their common law liability with reasonable limits only, and in holding that contracts which attempt to stipulate against all liability have long been held in the United States and Great Britain to be of no legal effect because contrary to public policy.[53]

Uniform State Law for Aeronautics and Air Carrier Liability

The Uniform State Law for Aeronautics was drafted in 1922 by the Conference of Commissioners for Uniform State Laws. This uniform act has been adopted in 22 states and territories of the United States, with modifications in some of the detailed provisions by some of the state or territorial legislatures. In its original form the uniform act contains no specific provisions respecting the liability of air transport carriers for injuries to or death of passengers resulting from airplane accidents. The uniform act as modified and adopted by the Pennsylvania legislature in its act of 1933 includes provisions with respect to the liability of air carriers for their passengers. Liability of air carriers is determined under Pennsylvania law by the rules of law applicable to torts on land.[54]

The Civil Aeronautics Act, 1938, contains no provisions with respect to the liability of interstate common carriers by aircraft.

Uniform Aviation Liability Act

The Conference of Commissioners on Uniform State Laws in 1938 approved a uniform aviation liability act, but this uniform act has not been adopted by any of the states or territories. In commenting upon state legislation in this field the Civil Aeronautics Board has indicated some of the reasons why this legislation has not been enacted.

> "Because the adoption of comprehensive aviation liability legislation by the legislatures of the 48 states would have an important effect upon the functions of the then newly created Civil Aeronautics Authority, the Commissioners on Uniform State Laws decided to refrain from sponsoring the new uniform act until this agency could study the entire problem and submit recommendations with respect thereto.

52. (82 U. of P. Law Rev. 165), 1933.

53. *Empire Trans. Co. v. Wamsutta O. R. and M Co.*, (63 Pa. 14), 1869; and *M'Manus v. L. and Y. R. Co.*, (4 H. and N. 327), 1859.

54. (P. L. 1929 and 1933).

"For some time the Board's staff has been engaged in a study of the problem, covering all phases of the general question. On June 1, 1941, a member of the Board's legal staff completed a report which is believed to be the most exhaustive study yet prepared on aviation liability. The report has not yet been formally considered by the Board, but has been released in order to give interested persons an opportunity to offer comments.

"The report recommends the adoption of a comprehensive federal aviation liability statute in place of the enactment of state aviation liability laws. It is urged that the Federal Government define liability in aircraft accidents, and authorize a federal agency to compel, by regulation, all classes of aircraft operators to carry liability insurance. In addition, the report criticizes the present laws governing accident liability, pointing out that they are not particularly well adapted to the peculiar characteristics of travel by air."[55]

Summary and Conclusions

Although the law with respect to the liability of aircraft carriers is in the developmental stage both with respect to statutory and case law, the following generalizations appear to be warranted by the present state of the law:

1. Air transportation carriers are included in the category of common carriers if they hold themselves out as such despite the novelty of the mode of transportation.
2. The status of an air carrier as a common carrier is tested by the same criteria as applied to other carriers to ascertain their status.
3. If air carriers do in fact hold themselves out to serve the public with only the well-recognized reservations with respect to capacity and extent of service, they are common carriers.
4. Reasonable rules and regulations with respect to persons accepted or rejected as passengers, limiting the number of passengers carried and the cancellation of service because of weather conditions may be made and enforced by air carriers without changing their status as common carriers.
5. Fixed routes and set schedules are not necessary criteria of the common carrier status,—the holding out appears to be the controlling criterion.
6. Aircraft carriers may have the status of common carriers even

55. Civil Aeronautics Board, *Annual Report, 1941*, p. 6.

in instances where the planes used take off and land at the same point without landing at any other point en route.

7. If carriers by aircraft do in fact serve the general public as common carriers they are subject generally to the same liability as other common carriers.

8. Aircraft common carriers are under legal obligation to exercise the highest degree of care, vigilance, precaution and skill consistent with the practical operation of the aircraft.

9. Common carriers by airplane are not liable for loss or damage suffered by their passengers caused by unusual or unpredictable weather conditions.

10. Passengers transported by air carriers have been held to assume all the usual or ordinary perils incident to this mode of travel, when the loss or damage they suffer is not due to negligence on the part of the carrier or its employees.

11. No presumption of negligence on the part of the carrier arises from the mere occurrence of an accident. The passenger alleging loss or damage must prove the alleged negligence in accordance with established rules of evidence, excepting in cases where the doctrine of *res ipsa loquitur* is applicable.

12. The *res ipsa loquitur* doctrine has been applied in air carrier accidents only when the cause of the accident and its surrounding circumstances were within the sole control of the carrier, and when no known or acknowledged cause of the accident could be assigned.

13. Common carriers by aircraft cannot provide in advance for avoiding or limiting their liability as common carriers for loss or damage suffered by passengers as a consequence of the negligence of the carrier or its servants, by statements in their tickets or stipulations in their contracts of transportation denying their status as a common carrier, limiting their liability or precluding recovery.

14. The liability of common carriers of property by air is subject to the same rules as those applicable to other common carriers of property.

15. Uniform liability of air carriers of passengers and property appears to be developing along rational lines and the further development of uniformity is being facilitated by state legislation. There is a possibility that uniformity in air carrier liability will be further developed by national legislation.

SOURCES OF FEEDER AIRLINE BUSINESS

† PART III: AIR CARGO

By JOHN H. FREDERICK and WILLIAM J. HUDSON

The air transport industry can not hope to reach the status of a mature industry until the potentialities of carrying express and freight by air are fully developed. Until very recently little or no interest was shown by the airlines in the promotion of this type of traffic. Probably the main reason for this indifference has been that airmail contracts have provided the airlines with basic revenues with which to develop passenger traffic, and there was no pressing need to enter into any new and highly competitive field as a source of revenues. Moreover, airports have been built with the idea of serving passengers and without regard for the requirements that the handling of air cargo shipments would necessitate. In fact, the development of air cargo was placed in the hands of the Railway Express Agency, a ground transportation agency, with the result that business men and the public in general have been conditioned to thinking of air cargo or express as an auxiliary to rail transportation, instead of a distinct and separate type of transportation service. This laxity of the air carriers combined with the high rates charged for the carriage of air express unquestionably has been detrimental to the development of this new field of airline business.

The most pressing need at the moment, in connection with both feeder and trunk airline traffic, is an investigation of the possibilities for the development of air cargo. Before the potentialities of this type of operation can be approximated, something must be found out about the kinds of goods that are likely to be carried by air, where this traffic is likely to originate, and how much business there will be. An analysis of the present status of air cargo development and an examination of some of the major business indices might serve to clarify the possibilities of air cargo. Too, the importance of airport planning for efficiently handling air cargo is another aspect of the problem which deserves the closest attention of both

† Editor's Note.—This is the fourth article in the feeder-airline series presented by the above authors. The first appeared in the January 1942 issue of this *Journal* in an article entitled "What Is a Feeder Airline?" The second appeared in the April 1942 issue under the title "Sources of Feeder Airline Business, Part I: Passenger Traffic." The third article is the second in this particular group under the title "Part II: Air Mail" and appeared in the July 1942 issue. The present article is the last in the series.

cities and the air carriers. In examining this problem this study will endeavor to relate its findings to the possibilities for handling air cargo shipments to and from small communities through the use of feeder airlines.

The function of feeder airlines is to tie into the trunk airline system the many small communities which do not now have direct access to air transport facilities. It is believed by many people both in the air transport industry and outside of it that the potentialities of air cargo, that is, freight and express shipments by air, offers a sound economic basis for that type of airline development. There are others who look upon small towns and cities as being parasitic or satellites attached to and dependent upon the larger cities for their economic well-being. Unquestionably whatever community of interest that exists between two cities, large or small, is a reciprocal association—they are dependent upon each other.

Origination and Destination of Air Express Shipments

As of March, 1941, the population of cities to which domestic air express tariffs applied was estimated at 41,460,000 with an off-airline population of 90,209,000. These off-airline cities received air express service over the rail lines by the Railway Express Agency to the nearest airline terminal point thence by air to destination. Approximately 30 per cent of all air express shipments were handled through coordinated rail and air service. The significant fact is that these off-airline shipments were far heavier and produced about 18 per cent more gross revenue per shipment than those moving entirely by air. For example, the average air revenue for off-airline shipments for April, 1939, was $3.059 against $2.60 average gross revenue for shipments between airline cities.[1] There is ample reason to believe that if these off-airline points were connected with the trunkline carriers a tremendous increase in air cargo shipments would result therefrom. It is to be expected that most air cargo will originate with or be destined to producers, wholesalers, and retailers. Normally air cargo shipments will not be originated by consumers though some consumer purchases from retailers may, under unusual circumstances, be delivered by air shipment.

Table I shows that in 1939, the latest date for which such data is available, the greater part of air express shipments were interstate or regional. The principal movement of traffic was from the north

1. Peterson, C. G., Air Express and Freight, the Past, Present, and Future, a paper presented at the Air Transport Session of the Institute of the Aeronautical Sciences, January 30, 1942. p. 22.

TABLE I

DIRECTION OF FLOW OF AIR EXPRESS
FOR TYPICAL STATES BY POUNDS, APRIL 1939*

Forwarded from	Total forwarded to all states	Destination				
		New York	California	Illinois	Florida	Texas
New York	102,082	1,987	15,240	18,970	11,112	4,218
California	74,409	11,309	32,421	2,194	595	2,172
Illinois	44,021	13,025	4,043	166	1,503	2,764
Florida	6,443	1,033	396	495	196	1,415
	Total received from all states					
	397,701	60,037	68,835	36,542	20,950	19,269

*Source: Peterson, C. G., "Air Express and Freight, the Past, Present, and Future," a paper presented at the Air Transport Session of the Institute of the Aeronautical Sciences, January 30, 1942. p. 24.

and northeastern states to the states of the south and west. The small number of intrastate shipments for each state was no doubt due to the lack of short-haul or feeder airlines having access to the towns and cities. Comparatively speaking, California was the exception to this condition because it is one of the largest states in area and has a more extensive airline development than most other states. While there are daily and monthly fluctuations in the number of shipments for each state the month of April 1939 was fairly representative of the current flow of air express shipments at that time. Since 1939, of course, the development of defense and war activities may have changed the situation here shown, but figures are not available for analysis here.

The Volume and Commodity Characteristics of Air Express Shipments

Much of the airlines' present air cargo business has been due to the rapid expansion of war industries. For the year 1941, the number of shipments by air express amounted to approximately

TABLE II

AIR EXPRESS SHIPMENTS, 1940 AND 1941*

Year	Gross Air Revenue	No. of Shipments	Weight (lbs.)	Ave. Wt. each (lbs.)	Ave. Chg each	Revenue to air companies
1940	3,043,231	1,078,189	7,699,772	7.10	$2.82	$2,061,306
1941	4,234,993	1,310,313	11,165,812	8.50	3.22	2,865,407

*Source: Peterson, C. G., "Air Express and Freight, the Past, Present and Future," a paper presented at the Air Transport Session of the Institute of the Aeronautical Sciences, January 30, 1942. p. 15.

1,310,313 and weighed a total of 11,165,812 pounds; compared to 1,078,189 shipments weighing 7,699,772 pounds in 1940. (See Table II). Not only was there a tremendous increase in the number of shipments and pounds of air express transported in 1941 over 1940, but the average weight of each shipment increased from 7.10 pounds to 8.50 pounds.

The detailed breakdown of air express shipments handled by the Railway Express Agency during the month of April for the years 1939 and 1941 shown in Table III will give some idea of the relative importance of the different classes of commodities to air express traffic. Of greatest importance are the shipments under machinery and hardware group which comprised 23.26 per cent of the total shipments in April, 1941; compared to 17.61 per cent in April, 1939. The impetus to shipments of machinery and machine parts of all kinds was due undoubtedly to the increased tempo of defense preparations which requires the immediate replacement of parts and the installation of new equipment in order to prevent the shut-down of plants engaged in war work.

While all categories of shipments showed a very large absolute increase in 1941 over 1939, several classes of shipments declined considerably in their relative importance to total shipments during this two year period. Machinery and hardware, printed matter, store merchandise, and valuables comprised about 66 per cent of total shipments in 1941, with the remaining 34 per cent of the total shipments made up of different kinds of goods.[2] It is evident from the following table that almost every item of traffic of high value and small bulk, such as the goods normally transported by the Railway Express Agency ground service, is sometimes transported by air.

The war has given renewed impetus to the air cargo business. The decentralization of war industries to the South and Southwestern states will have lasting effects on the economic organization of the country. Areas of the nation, particularly states in the South and West of the Mississippi River, whose economic potentialities have been undeveloped will find stimulation in this tendency toward decentralization of economic power. Decentralization will mean a greater regional specialization of production and will require greater

2. In October, 1941, the ten largest classes of lading reported by the air carriers, and their percentage of the total, were wearing apparel, 10.8%; electroplates, 6.9%; legal papers, 6.8%; printed advertising, 6.6%; news photographs, 6.6%; magazines, 5.6%; miscellaneous machinery, 4.7%; bank securities, 4.7%; motion picture films, 4.7%; and electrical products, 4.2%. *Business Week*, February 14, 1942. p. 24.

TABLE III

AIR EXPRESS SHIPMENTS BY COMMODITY GROUPS, APRIL, 1939 AND 1941*

Commodity groups	April, 1939 Shipments	April, 1939 % of Total	April, 1941 Shipments	April, 1941 % of Total
Machinery and hardware: including automobile, electric, machinery, aviation and oil	11,616	17.61	25,480	23.26
Printed matter: including newspapers and racing forms, magazines, prospectuses, drawings and advertising	11,975	18.17	16,553	15.11
Store merchandise: including clothing, textiles, cosmetics, shoes, furs, and millinery	8,995	13.64	14,668	13.39
Valuables: including valuable papers, bank and stockbroker shipments, gold, currency, etc.	7,930	12.02	9,038	8.26
Electros—matrices	4,563	6.92	6,697	6.11
Jewelry—optical: including silverware, watches, lenses, and cameras	2,445	3.71	4,875	4.45
Freight manifests	2,287	3.47	4,777	4.36
News Photos	3,982	6.04	4,844	4.42
Radio parts: including transcription records	1,828	2.77	4,962	4.53
Motion picture films: including theater properties, sound parts and news reels	3,199	4.85	4,737	4.32
Cut flowers	2,109	3.20	3,972	3.63
Personal baggage and other personal shipments	115	.17	2,396	2.19
Food: including raw samples	1,396	2.12	1,952	1.78
Medical-chemical: including drugs, serums, surgical instruments	1,371	2.07	1,603	1.46
Miscellaneous: including liquor, plastics, glassware, furniture, live insects, etc.	2,140	3.24	3,010	2.73
TOTALS	65,951	100.00	109,564	100.00

*Source: Peterson, C. G., "Air Express and Freight, the Past, Present, and Future," a paper presented at the Air Transport Session of the Institute of the Aeronautical Sciences, January 30, 1942.

efficiency and economy in the distribution of goods. It appears that air cargo is destined to play an important part in providing modern transportation services in keeping with this new tendency toward decentralization of industry.

The Georgraphic Distribution of Wholesale and Retail Sales and Establishments

The flow of goods through the channels of distribution is a complex process. The movement of products from the producer of raw materials, to the manufacturer for processing and on to the wholesaler and retailer and ultimately to the consumer requires the extensive use of transportation facilities. How, then, may air transportation fit into the national transportation pattern so as to most effectively play its part in the processes of distribution?

While the number of producing units in the nation is quite large, the possibilities of air cargo development might be more adequately presented by an analysis of wholesale and retail establishments and sales. These are the business units which more nearly reflect the comparative business activity of the several states for they are the intermediate distributive points between the producer and consumer for a large variety of goods. The extent to which these business concerns are served by airline facilities will give some idea of the future needs for new air routes for air cargo shipments.

Wholesale Sales and Establishments. The 1939 Census of Wholesale Trade in the United States reports 200,583 wholesale establishments of which 119,140, or about 60 percent, are located in the densely populated and highly industrialized Middle Atlantic and East and West North Central regions of the country.[3] The remaining 40 per cent of these establishments are widely distributed over the other six geographic divisions as shown in Table IV.

About one-third of all wholesale establishments, in cities having scheduled airline stops, are located in the Middle Atlantic area giving that region nearly 74 per cent coverage of the wholesale business by direct air cargo facilities. Although the Pacific division has only 12.86 per cent of the wholesale establishments located at airline stops, it ranked second in the proportion of houses served

3. Wholesales trade is divided functionally into six major groups by the Bureau of the Census. This functional division is (1) service and limited function wholesalers; (2) manufacturers' sales branches carrying stocks; (3) manufacturers' sales offices, which are separate places of business apart from plants, not carrying stocks; (4) petroleum bulk stations and terminals; (5) agents and brokers; and (6) assemblers of farm products.

TABLE IV

DISTRIBUTION BY GEOGRAPHIC DIVISION OF WHOLESALE ESTABLISHMENTS IN THE UNITED STATES AND THE PROPORTION OF ESTABLISHMENTS IN CITIES WITH SCHEDULED AIRLINE SERVICE IN 1940*

Geographic Division	Number of wholesale establishments	Per cent of total wholesale establishments in U. S.	Number of wholesale establishments with scheduled air service	Per cent of total wholesale establishments with scheduled air service	Per cent of total wholesale establishments in division with scheduled air service
New England	10,107	5.04	5,449	5.36	53.91
Middle Atlantic	45,370	22.62	33,497	32.97	73.83
East North Central	40,634	20.26	19,831	19.52	48.80
West North Central	33,136	16.52	9,204	9.06	27.78
South Atlantic	17,426	8.69	7,699	7.58	44.18
East South Central	8,198	4.09	3,460	3.41	42.20
West South Central	18,470	9.21	6,624	6.52	35.86
Mountain	7,310	3.64	2,756	2.71	37.70
Pacific	19,932	9.94	13,064	12.86	65.54
TOTALS	200,583	100.00	101,584	100.00	50.64

*Compiled from the 16th Census of the United States, Wholesale Trade, 1939, Bureau of the Census, 1941 and the Airline Traffic Survey, September, 1940, Civil Aeronautics Board, 1941.

with 65.54 per cent. The New England area has scheduled airline service to more than 50 per cent of the wholesale houses in that region but contributed only 5.36 of the total number of wholesale houses with scheduled air transport services. Airline coverage of wholesale establishments in the remainder of the geographic divisions ranged from only 27.78 per cent in the West North Central division to 48.80 per cent in the East North Central. These six regions, however, account for less than 50 per cent of the total wholesale establishments with direct access to scheduled air express service, but include approximately 63 per cent of the total wholesalers in the country.

In 1940, just 50 per cent of all the wholesale establishments included in the Census report were located in cities and towns having scheduled airline service. This means that wholesalers in off-airline cities could not avail themselves of direct air express and goods destined to or from these off-airline cities had to be handled by truck or rail to or from the nearest airline terminal. Certainly, in many cases, the time lost by having to ship via ground facilities, at least part of the way, is one of the major detriments to the development of air cargo in large volume.

The geographic distribution of wholesale sales as reported by the 1939 Census of Wholesaling is shown in Table V. It is significant that of $55,265,640,000 of sales reported for the nation, $42,488,295,000 of sales were made by establishments located in cities with scheduled airline services. The Middle Atlantic region accounted for 34.25 per cent of the total value of wholesale sales and 87.24 per cent of these sales were made in cities having direct air conections. The very high percentage of divisional coverage is accounted for by the fact that New York City, the largest jobbing center in the country, Philadelphia, and Pittsburgh are in this region. Each of the divisions, where the largest industrial development and jobbing centers are located, show a very high percentage of the total value of wholesale sales in their divisions with direct air cargo services. The East North Central region where such large cities as Chicago, Cleveland, Detroit and others are located had direct air connections for almost half of its wholesale establishments and covering 76.85 per cent of the sales in the region. Likewise, the Pacific division with Los Angeles, San Francisco, Seattle, and Portland had direct air service to cities where 78.47 per cent of the wholesale sales in that area were made. It is of interest to observe that although each of the remaining divisions have less than

TABLE V

DISTRIBUTION BY GEOGRAPHIC DIVISION OF WHOLESALE SALES IN THE UNITED STATES AND THE PROPORTION OF SALES IN CITIES WITH SCHEDULED AIR SERVICE IN 1940*

Geographic Division	Amount of wholesale sales (add 000)	Per cent of total wholesale sales in U. S.	Amount of wholesale sales made in cities with scheduled air service (add 000)	Per cent of total wholesale sales made in cities served	Per cent of total divisional wholesale sales made in cities served
New England	$ 3,171,487	5.74	$ 2,183,445	5.14	68.85
Middle Atlantic	18,931,269	34.25	16,515,547	38.87	87.24
East North Central	11,228.015	20.32	8,628,734	20.31	76.85
West North Central	5,808,272	10.51	3,992,777	9.40	68.74
South Atlantic	4,566,652	8.26	2,792,169	6.57	61.14
East South Central	1,964,803	3.55	1,316,768	3.10	67.02
West South Central	3,457,385	6.25	2,357,811	5.55	68.20
Mountain	1,088,587	1.97	738,848	1.74	67.87
Pacific	5,049,170	9.14	3,962,196	9.32	78.47
TOTALS	$55,265,640	100.00	$42,488,295	100.00	76.88

*Source: Compiled from the 16th Census of the United States, Wholesale Trade, 1939, Bureau of the Census, 1941, and the Airline Traffic Survey, September, 1940, Civil Aeronautics Board, 1941.

50 per cent of their wholesale houses served by air transportation, in no instance is less than 60 per cent of the values of the total wholesale sales in these regions within reach of air express service.

This analysis of the distribution of wholesale establishments and sales indicates that, with respect to the wholesale trade of the country, one-half of the business houses accounting for three-fourths of the dollar value of the total wholesale business have direct access to scheduled airline services. Since the major air carriers rendered scheduled services to only 211 cities and towns in the United States in 1940, it is evident that the largest volume of wholesale business is concentrated at relatively few cities which are the marketing and jobbing centers for the several geographic divisions. High concentration of wholesale trade in the very large population centers is shown by the fact that the fourteen cities (including the District of Columbia), each with a population of more than 500,000 in 1940, contributed 31 per cent of the wholesale establishments and 52 per cent of the sales for the country. These fourteen cities, however, accounted for only 17 per cent of the population. Cities of 100,000 to 500,000 population contributed 23 per cent of wholesale sales, but only 12 per cent of the population. Approximately two-thirds (66 per cent) of the population but only 20 per cent of wholesale trade is found in cities of less than 50,000 population and in rural areas.[4]

This concentration of wholesale business does not negate the value of feeder airlines for a large proportion of the wholesale sales by establishments located at airline stops were to other establishments located in communities outside of the city in which they are situated. Wholesalers in many cities serve a trading area extending from 50 to 100 miles around the city in which they are located. The trunkline air carriers are not equipped to handle short-haul traffic so the development of air cargo traffic of that kind must necessarily be undertaken by feeder airlines if small communities are to have direct air service at all.

Retail Sales and Establishments. The figures in Table VI show that only 574,922 of the 1,770,355 retail establishments in the United States are located in cities having scheduled airline services. That just one-third of these retail stores are situated at airline stops is accounted for by the fact that a retail store, unlike the wholesale business, is usually a small local business enterprise. All cities and towns have retail stores of one kind or another, but a wholesaler

4. *Sixteenth Census of the United States, Wholesale Trade:* 1939, United States Summary, Bureau of the Census, March 31, 1941, p. 1.

TABLE VI

DISTRIBUTION BY GEOGRAPHIC DIVISION OF RETAIL ESTABLISHMENTS IN THE UNITED STATES AND THE PROPORTION OF ESTABLISHMENTS IN CITIES WITH DIRECT AIR SERVICE IN 1940*

Geographic Division	Number of retail establishments	Per cent of total establishments in U. S.	Number of retail establishments with scheduled air service	Per cent of total retail establishments with scheduled air service	Per cent of total divisional retail establishments with scheduled air service
New England	121,888	6.88	26,538	4.61	21.77
Middle Atlantic	412,819	23.32	184,792	32.14	44.76
East North Central	364,508	20.58	129,729	22.56	35.59
West North Central	197,909	11.18	33,389	5.81	16.87
South Atlantic	199,371	11.26	53,036	9.22	26.60
East South Central	101,065	5.71	21,658	3.77	21.43
West South Central	159,768	9.02	40,375	7.02	25.27
Mountain	57,459	3.25	16,233	2.84	28.25
Pacific	155,568	8.79	69,172	12.03	44.46
TOTALS	1,770,355	100.00	574,922	100.00	32.47

*Source: Compiled from the *16th Census of the United States*, Census of Business, Volume I, Retail Trade: 1939, Part 3, Bureau of the Census (1941), and the *Airline Traffic Survey, September, 1940*, Civil Aeronautics Board (1941).

must locate in the larger cities serving as trading centers for a larger area comprised of many small communities.

The geographic distribution of retail establishments in the United States is almost identical, on a percentage basis, with the distribution of wholesale establishments. Two exceptions are the South Atlantic division which has only 8.69 per cent of the total number of wholesale houses reported but accounts for 11.26 per cent of the total retail establishments and the West North Central region with 16.52 per cent of the total wholesale establishments but only 11.18 per cent of the total retail establishments reported.

The dispersion of retail businesses among the many towns and cities of the country is indicated by the fact that just 32.47 per cent of all such stores are located at airline terminal points. Moreover, the Middle Atlantic, East North Central, and Pacific divisions, where the largest cities are located, each have less than 50 per cent of the retail stores served by air carriage in contrast to more than three-fourths of their wholesale establishments. The inadequacy of airline coverage of the retail business of the nation is so obvious that further comment is unnecessary other than to conclude that if the business houses of the country are to receive the benefits of air cargo and other air transportation services, there must be a considerable expansion of air routes and airline stops to include the smaller centers of population.

A much larger proportion of retail sales were made in cities serving as airline stops in relation to the percentage of establishments located at those points. Table VII indicates that of the $42,014,790,000 of retail sales made in 1939, $17,547,082,000 or 41.74 per cent, were made in the 211 cities served by the major air carriers.[5] The Middle Atlantic, West North Central, and Pacific divisions reflect a higher percentage of total retail sales made in cities served compared to the percentage of total retail sales in the United States made by their divisions. This may be explained by the fact that the cities of largest population are situated in these divisions and because these are regions of the greatest commercial and industrial activity in the United States.

5. Wholesale sales are in excess of total retail business by approximately $13,000,000,000. This difference according to the Bureau of the Census is due to several factors. In addition to selling to retailers, many wholesalers conduct an export business, and it is the practice of some classes of wholesalers, notably agents and brokers, to sell to other wholesale establishments. Also, many sell raw materials and capital goods to industrial, commercial, institutional and professional users; goods that normally do not move through retail channels *Ibid.*, p. 2.

TABLE VII

DISTRIBUTION BY GEOGRAPHIC DIVISION OF RETAIL SALES IN THE UNITED STATES AND THE PROPORTION OF SALES IN CITIES WITH AIR SERVICE IN 1940*

Geographic Division	Amount of retail sales (add 000)	Per cent of total retail sales in U. S.	Amount of retail sales made in cities served (add 000)	Per cent of total retail sales made in cities served	Per cent of total divisional retail sales made in cities served
New England	$ 3,318,214	7.89	$ 1,008,693	5.75	30.40
Middle Atlantic	10,291,937	24.48	5,275,724	30.07	51.26
East North Central	9,251,114	22.00	4,255,882	24.25	46.00
West North Central	4,138,883	9.84	1,227,432	6.99	29.66
South Atlantic	4,368,947	10.39	1,878,987	10.71	43.01
East South Central	1,845,037	4.39	727,921	4.15	39.45
West South Central	3,101,358	7.38	1,261,570	7.19	40.68
Mountain	1,427,541	3.39	645,198	3.62	44.50
Pacific	4,298,759	10.22	2,275,675	12.97	52.94
TOTALS	$42,041,790	100.00	$17,547,082	100.00	41.74

*Source: Compiled from the *16th Census of the United States*, Census of Business, Volume I, Retail Trade: 1939, Part 3, Bureau of the Census (1941), and the *Airline Traffic Survey*, September 1940, Civil Aeronautics Board (1941).

The New England and West North Central divisions, each, show a smaller percentage of retail sales compared to the total retail sales made in cities located on airline stops than they do for total retail sales in the country. This is accounted for by the fact that the new England region contains many small towns and has few airline stops while the West North Central region, though more sparsely settled and having fewer cities, is of large area with a small number of airline stops. The other divisions show approximately the same percentage relationship for both total sales and sales made in cities served by scheduled air carriers.

The fact that only about 32 per cent of retail establishments accounting for 41 per cent of retail sales have direct air service suggests that insofar as replenishment of stocks from manufacturers or wholesalers is concerned, the retail business of the country is primarily dependent upon ground transportation facilities. Cargo carrying planes of feeder airlines might be used to provide through air service for such transactions. But from the point of view of consumer retail purchases, the local nature of these transactions does not offer much opportunity for the use of air services.

It must be remembered that in a country like the United States with such extensive geographic boundaries and with such a variety of natural resources often found far removed from centers of population, speed in the movement of goods is essential. Some of the principal geographic divisions of the country are predominantly agricultural while others are mainly industrial. Manufactured surpluses are found in the New England, Middle Atlantic and East North Central regions while agricultural surpluses occur principally in the West North Central, East South Central, West South Central, Mountain and Pacific regions. This production pattern requires the broad movement of goods over long distances and into thousands of communities large and small. These factors make it imperative to have available at all times the most modern and efficient transportation services. Air cargo will undoubtedly provide the next major improvement in our distribution process. There will be room for feeder airlines in the air cargo field. The existing trunk line carriers will benefit from this kind of air transport development. The shipping public will benefit immeasurably by the increased and more rapid services which will be made available to them.

The Airport Problem

The problem of air cargo services to small communities lies only in part in the technical development of suitable aircraft and operating procedures. The establishment of air cargo routes, and all other air routes, is equally dependent upon the adequacy of airport facilities at the communities intended to be served. Airport inadequacy has been the primary retarding factor in the expansion of air transport services in the United States. Even though suitable equipment were available and a rational rate structure determined upon now, few new scheduled airline stops could be added to the airway system because of the poor quality of existing airports. The possibility of an economically sound air cargo service would be greatly increased by the development of a national airport system designed to meet the requirements for air cargo as well as air mail and passenger services.

In the planning of an airport system, airports may be placed either with respect to the distribution of population and of business activity or with reference to a somewhat uniform geographical distribution. In connection with the former, the Civil Aeronautics Authority in 1938 estimated that there would be needed a total of about 3,000 airports in order that there might be an airport within 30 minutes driving distance of every reasonably compact population group of as many as 5,000 persons and within 1 hour's driving time of all sections having a mean population density of as much as four persons per square mile. With reference to a uniform geographical distribution, airports could be so located that every point in the United States would be within 15 miles of an airport, if slightly more than 5,000 fields were maintained.[6]

When these two plans are compared to the present status of airport facilities as shown in Table VIII, it may be seen that airport development is considerably under the minimum suggested for either of the suggested bases. The numerical inadequacy of present airport facilities is further complicated by the fact that many of these existing airports are too small for commercial use and lack service facilities for the handling of air transport traffic, either passenger or cargo.

The airport summary as given in Table VIII indicates that at the beginning of 1942 only nine per cent of the total commercial, municipal and intermediate airports were authorized to be used by

6. *Airport Survey*, Report to the Congress of the United States by the Civil Aeronautics Authority, March, 1939, pp. 82-83.

TABLE VIII

THE LOCATION BY GEOGRAPHIC DIVISION OF COMMERCIAL, MUNICIPAL, AND INTERMEDIATE AIRPORTS AND THEIR UTILIZATION BY SCHEDULED DOMESTIC AIR CARRIERS AS OF JANUARY 1, 1942*

Geographic Division	Total airports[1]	Per cent of total airports	Number of airports serving scheduled airline stops	Per cent of total airports serving scheduled airline stops	Per cent of airports utilized
New England	97	4.22	17	8.06	13.40
Middle Atlantic	238	10.35	16	7.58	6.72
East North Central	406	17.66	24	11.37	5.91
West North Central	266	11.57	28	13.27	10.53
South Atlantic	322	14.01	31	14.69	9.63
East South Central	102	4.44	21	9.95	20.59
West South Central	304	13.22	22	10.46	7.24
Mountain	313	13.61	32	15.16	10.22
Pacific	252	10.96	20	9.48	7.94
TOTALS	2,299	100.00	211	100.00	9.18

*Source: Civil Aeronautics Authority, *Civil Aeronautics Journal*, January 5, 1942.
[1]Army, Navy, miscellaneous Government and private airports number 185 omitted.

scheduled air carriers. Both the number of existing airports and the number designated as scheduled airline stops appear to be relatively evenly distributed between the several geographic divisions. The important fact to note is the very small percentage of utilization of these airports for scheduled airline service. This situation, as was mentioned earlier, is explained by the fact that the great majority of the fields are beneath the minimum requirements for commercial use.[7]

Probably the main reason why airports do not come up to the minimum standards required for commercial air transportation is that most of them are not paying their way. Of approximately 650 municipal airports in the United States investigated in 1940 not more than 15 per cent were paying their way or breaking even. The remainder had operating deficits, requiring appropriations out of general municipal tax funds to balance their budgets.[8] Local governments are reluctant to spend money for the support and maintenance of airports unless they can receive the benefits of scheduled airline service. The burden of airport maintenance falls especially hard on smaller cities and on cities of limited resources. Unlike most public improvements which may be proportional in size and expense to the size of the city, the landing area of an airport of a city of a hundred thousand population must be the same size as the landing area on an airport of a million population to accommodate the same size planes. Other improvements such as the quality of the runways, the standard of the lighting equipment must be the same on an airport owned by a small city as on an airport owned by a large city.

Commercial air transportation is now at the point where its continued development can be seriously handicapped by lack of airport planning. Even the newest airports have been built with the idea of serving passengers and without providing adequate

7. *Ibid.* pp. 31-32. The tentative minimum standards for airports set up by the Civil Aeronautics Authority are divided into four classes; Class I having the lowest rating and Class IV the highest. The major differences among the four classes are found in the size of landing area as expressed in lengths of landing strips required and in the specifications for navigational and servicing facilities.

The Authority classified the 1,907 civil airports existing January 1, 1939 and found that 85 per cent of them were of Class I, while 3 per cent could not support a Class I rating. About 10 per cent were Class II, two per cent Class III, and not a single airport which would meet all of the requirements for Class IV

Of the 206 airports designated for use by scheduled air carriers in 1939, one-third were in Class I, a little over half in Class II, and only about one-tenth in Class III.

Since this survey in 1939 the standards of many airports have been raised with the aid of Federal funds administered by the Civil Aeronautics Board and the War Department.

8. *Financing Municipal Airport Operation*, Report No. 143 of the American Municipal Association, Chicago, December, 1940, p. 1.

terminal facilities for handling present or future air cargo. The development of air cargo traffic will bring about a differentiation or specialization of airports which will require a diversity of airport development to meet the needs of each locality. Large cities will require separate airports for serving passengers and for handling air cargo. A single airport may suffice for all types of traffic in communities of small size, and depending upon the nature of its business activities.

The small cargo carrying plane of the type which would be operated by feeder airlines provides the logical means for transporting property for short distances from or to major terminal points where they can be transferred to through flights. Shippers, however, will use air cargo only if it is more advantageous to them than the services of competing ground carriers. The important advantages of air transport service are speed and frequency of schedules. And without airports of proper design to insure efficient handling and transfer of shipments, the saving in air-transit time on short-haul flights will be lost. It becomes apparent, therefore, that airports for handling air cargo should be located as near as possible to the business district of a city so as to be in close proximity to the terminals for other methods of transportation and to cut down the distance and, consequently, the time required to render fast truck pick up and delivery service for air shipments. This will require that all ground handling equipment and methods be extremely efficient in order to provide for rapid loading and unloading between scheduled flights and the proper coordination of air and ground carriers.

For those communities which are too small to support an airport of sufficient size to permit the landing of regular cargo carrying planes, air cargo services might be provided through the use of small planes equipped with an automatic pick-up and delivery device such as is now used by All American Aviation and which provides that type of service in several eastern states. This would permit the pick-up and delivery of small parcels while the plane is in flight and obviate the necessity for heavy investment by a small community in an airport beyond the requrements to serve its needs.

Until proper airports and ground handling facilities are provided, the development of air cargo will be hampered. This is a problem which demands the interest of business men and local government officials as well as the airlines. The present air carriers are more than anxious to make their services available to

the public wherever and whenever they are needed, but they cannot do so without the wholehearted cooperation of the shipping public. In this respect the business interests of a community can provide much valuable information to local planning committees and the air carriers on which the present and future airport requirements best suited to meet the needs of the community may be based.

Conclusion

In summarizing the preceding discussion it may be said that the rapid growth of air cargo business in recent years indicates that a more comprehensive development of that phase of air transport service in the future is possible. Whenever speedy transmission of property is required, air cargo is the logical means of transportation. That many types of merchandise may be profitably carried by air was shown by the commodity breakdown of air express shipments. What additional products and how much will be transported by air in the future is largely unpredictable and will depend upon technological developments in equipment design and construction. But even with present equipment air cargo operations could be expanded tremendously if the air carriers had access to the hundreds of small communities not now served by scheduled airlines. This would require the establishment of feeder airlines using small planes to provide short-haul air cargo service to and from terminal points and small communities and between small communities.

From an operations standpoint a major handicap to the development of an adequate air cargo system has been the lack of airports designed and constructed to meet the needs for this specialized type of service. Although much can be done to overcome this present condition by the improvement of existing airports, what is really needed is a national airport plan which will coordinate local, regional, and national airport requirements into an integrated whole. In this plan airport requirements for the efficient handling of air cargo shipments is a major factor to be considered and it is the responsibility of the shippers and other business interests in each community to see that the possibilities of air cargo are regarded in their proper light.

EDITORIALS

MORE ABOUT "RECAPTURE" AIR MAIL PAY

Permanent relief seems to be in sight for the heavy blow dealt the air carrier industry by the Civil Aeronautics Board through its air mail pay order of March 12, 1942, providing for recapture of approximately $4,000,000 from American Airlines. The full texts of the opinion and order were published in the April 1942 issue of this *Journal*. Progress as to reconsideration and further hearing was reported in the July issue. American Airlines and Eastern Air Lines, with an Examiner's Report providing for recapture of air mail pay, have been granted temporary relief. Just how and why such drastic action was visited upon two of our largest domestic air carriers is somewhat of a mystery, especially since it was taken three months after Pearl Harbor.

However, the Board now seems to have a better grasp of wartime economy, for it has lately found recapture of excess profits contrary to the public interest for two American-flag air carriers operating abroad, which have heretofore enjoyed far more generous air mail pay than any domestic carrier. We report these decisions from official press releases of the Civil Aeronautics Board.

The Civil Aeronautics Board on July 30, 1942 issued its final order in the air mail rate proceeding involving Pan American-Grace Airways, Inc., and decided not to effect the recapture of profits earned by Panagra under the mail rates prevailing over an extended period in the past. *Recapture was declared to be economically unsound and contrary to the public interest.* The Board, however, while not issuing a conditional order, made definite suggestions to the carrier, setting forth its views as to appropriate procedures which the management should take to insure that the excessive earnings collected by the carrier should be devoted to the transportation service until the carrier becomes economically self-sufficient and not transferred as dividends to the company's stockholders.

The Board's opinion points out that Panagra, operating under a contract entered into with the Postmaster General in 1929, shows operating profits during the last 13 years of $6,035,258, approximately one-half of which accrued during the pendency of the rate inquiry which preceded the opinion. In its final opinion the Board

affirmed its previous holding that $1,375,000 of these profits were excessive.

The Board made note of its decision on March 12 in the American Airlines rate case, now under reconsideration, and stated that it had reached its conclusion against the policy of recapture in the Panagra rate case "upon considerations which have been accentuated by developments affecting air transportation since the Board's former decision involving the same issue". The Board made it clear, however, that in fixing the future rate, these excess earnings would not be considered as a part of Panagra's investment on which it would receive a profit until it reached a self-sustaining basis and was paid for the carriage of mail only on a basis of compensation for such service.

Two primary considerations were presented as influencing the Board against the recapture policy: First, the detrimental economic effect of such a policy upon the carrier during present wartime conditions; and second, the need of the carrier for ample reserves to act as a "cushion" against the exigencies of the future in which (the Board said) it will be called upon to perform "a task of unpredictable magnitude". "Our international air carriers . . . will face a need for capital," said the Board, "which is likely to be as sudden as it will be urgent. If they are to be able to satisfy those capital requirements they must present a reasonably sound financial condition to the investing public." To reduce the financial resources of Panagra under such circumstances "would clearly lack that justification which should accompany a policy vitally affecting air transportation."

Pan American-Grace Airways, commonly called Panagra, operates between the Canal Zone and Buenos Aires by way of the west coast of South America, serving Colombia, Ecuador, Peru, Bolivia, Chile, and the Argentine Republic; and also operates local services in some of these countries, especially Ecuador and Bolivia, where its operations have replaced those of companies under German domination.

The Civil Aeronautics Board September 1, 1942 announced a reduction in mail rates payable to Pan American Airways, Inc., over that carrier's Latin-American Divisions from Brownsville, Texas, to Trinidad, via Mexico City and Balboa, Canal Zone; and from Miami, Florida, to Buenos Aires, Argentina, via Rio de Janeiro, Brazil. The Board pointed out that increased war traffic in express,

mail, and passengers was resulting in constant heavy pay loads on the carrier's Latin-American Divisions. During the pendency of this proceeding, according to the Board, Pan American earned excess profits of about $4,356,000 on an average investment of approximately $8,442,000. *The Board stated, however, that it will not order the excess profits of $4,356,000 recaptured.*

Instead, as in the recent Panagra Mail Rate case decision, the Board expects the carrier to place certain restrictions on the use of such earnings found to be excessive, emphasizing that these excess funds should be used to serve and develop public air transportation, and should not be devoted to the personal interest of the stockholders through the payment of dividends. Accordingly, the Board suggested that in addition to maintaining its capital stock account Pan American establish a specal reserve account, to which shall be credited an amount equal to the excess earnings, or transfer such earnings to the capital account, or a combination of both.

In establishing the new rate the Board reviewed the financial history of the carrier's Latin-American routes from January 1, 1929, to May 31, 1942, and stated that during that period, on an average net investment of $7,192,202 Pan American had earned an average annual net of 20.75 percent before Federal taxes and 15.32 percent after taxes and paid out an average annual dividend of 7.82 percent. Beginning September 1, 1942, the Board found that the carrier had a recognized investment of $14,204,895 and indicated that reasonable earnings on this amount under present war conditions will be $1,420,490 per year after payment of Federal taxes.

STATE

C. A. B. TRIAL BALLOON FOR FEDERAL AMENDMENT

Civil Aeronautics Board
Washington

July 27, 1942†

Mr. Dexter C. Martin, Past President
National Association of State Aviation Officials
Columbia, S. C.

RE: *Air Traffic Control*

Dear Dexter:

Following this war, and even possibly before the end of the war, the increase in air traffic and the diversity of types of aircraft which will be flown over our airways are likely to create a traffic control situation which might result in an increase in accidents and interfere with maximum efficiency in the utilization of aircraft and aviation facilities unless the problem is attacked and solved before-hand.

The great increase in the network of airways which can be expected will require accurate navigation at all times. Towed gliders, helicopters, and wide variation in the approach and landing speeds of fixed wing aircraft will call for traffic patterns not yet contemplated. The increases in itinerant, as well as scheduled flying, may require distinct airways or levels for the two.

On the other hand, at the end of the war a great number of landing fields and flying strips will be available. Advances in the art of instrument navigation, devices by which aircraft can approximate the position of other aircraft with reference to each other under conditions of very bad visibility, and a very

•

The problem involves not only air traffic, but city planning, foreign competition, competition with surface transportation, zoning laws, legal jurisdiction, distribution of population and economic considerations. *A constitutional amendment nationalizing the air space may be necessary.* The problem of States Rights must also be considered.

The Civil Aeronautics Board is interested in this matter from the point of view of preparing regulations. The Civil Aeronautics Administration will also be vitally interested from the point of view of enforcing these regulations and in establishing the necessary procedures to guide airways personnel and pilots.

---

† Editor's Note:—During late July and early August, 1942, the present letter was sent out to various individuals. The *Journal* editor-in-chief did not receive one, and the extent of the mailing is otherwise unknown to this *Journal*. Immediately following, we now reproduce the reply of Dexter C. Martin, for many years the highly successful Director of the South Carolina Aeronautics Commission and a Past President of the National Association of State Aviation Officials. The reply of Mr. Martin is in accord with several others this *Journal* has seen.

Rather than appoint a committee to study the problem, at this time, this letter is being sent to selected persons and organizations familiar with aviation to obtain opinions on methods of attacking this problem. Your thoughts are earnestly solicited and we would appreciate your response before September 15, if possible.

Sincerely yours,

JEROME LEDERER
Director, Safety Bureau

Columbia, S. C.

September 3, 1942

Mr. Jerome Lederer
Director, Safety Bureau
Civil Aeronautics Board
Washington, D. C.

RE: *Air Traffic Control*

Dear Jerry:

This will acknowledge receipt of your letter of July 27th, inviting comments on purposed regulation of Air Traffic Control *after the war.*

In the beginning, considering a matter of this nature at this time appears to me to be entirely out of order and uncalled for. Too many seem to be more concerned about "what will happen after the war" instead of bending every possible effort towards the *winning* of this war. For after all this war must be won and won as soon as possible or we will not have much to say about anything after the war.

However, I would like to make the following observations.

1st, Federal control of the air is not needed, because the President of the United States already has this power under the defense act.

2nd, There will be a back swing after the war and consequently the budgets of all federal agencies will be reduced. CAA cannot do the job it is supposed to do now, even with civil aviation curtailed as it is, and yet CAA has at the present time the largest budget in its history at its disposal.

3rd, It appears to me that this is nothing more than an attempt by CAA to grab control of aviation under the guise of National Defense in this time of war.

Trusting that I have conveyed my thoughts on the matter to you as requested, with kindest personal regards, I am,

Sincerely yours,

DEXTER C. MARTIN, *Director*
S. C. Aeronautics Commission

DCM/mb

AMERICAN BAR ASSOCIATION REPORTS, 1942:

SECTION OF PUBLIC UTILITY LAW

Air Transportation

The entrance of the United States into the war has brought a new recognition of the role which air transport is likely to play in the future transportation system. The Axis submarine campaign has stimulated interest in the air supply of our forces and allies abroad; and the withdrawal of ships from regular commercial service, particularly between the United States and the belligerent and neutral nations of Latin America, has made these countries more than ever dependent on air transportation for the rapid movement of passengers and mail to and from the United States and between themselves as well. While, so far as the immediate present is concerned, needs of the armed forces for flight equipment have been such as not only to prevent expansion of the common-carrier activities of the airlines but to require substantial curtailment of operations within the United States, it is now generally conceded that the post-war development of air transportation will dwarf the conceptions previously held even by its most enthusiastic partisans. This gives added importance to the development of the regulation of this industry.

Since almost all air transportation goes beyond state lines, this regulation has been and necessarily will be primarily Federal in character. The activities of the Civil Aeronautics Board had been affected by the national defense program in a very marked way long before December 7, 1941, and developments since that time have been largely conditioned by the war.

1. *Certificates of convenience and necessity.*

The unavailability of additional transport aircraft and the demands of the United States and others of the United Nations prevented any large expansion of the airline network. No additional transports were delivered to the carriers by aircraft manufacturers after September 15, 1941, whereas between April 1, and December 31, 1941, the industry turned over to the Procurement Division of the United States Treasury Department 25 transport aircraft.[1] Such certificates as were issued by the Board during the year ended June 30, 1942, were almost all based on military or diplomatic rather than on economic considerations, and most of them were limited in duration to the emergency.[2]

Although hearings on a number of important certificate applications were had during the first six months of the year under review, the unavailability of equipment gave most of these hearings a rather unrealistic character, and proceedings in the bulk of these cases were terminated after the entrance of the United States into the war. On December 12, 1941, the Board issued a statement of policy that no further steps would be taken in any certificate cases except where "the Board finds that the national interest may require early

1. See Letter from the Chairman of the Civil Aeronautics Board, 77th Cong. 2d Sess., S. Doc. No. 206, p. 9.

2. See *e.g.*, Pan American Airways Co. United States-Africa Service, 3 C.A.B. 47, Sept. 9, 1941; Pan American Airways Co., Lisbon-Foynes Operation, 3 C.A.B. 238, Dec. 19, 1941; Pan American Airways Temp. Amend., U.S.-So. Am.-Europe Op., 3 C.A.B. 256, Jan. 10, 1942; American Export Air. Temporary New York-Foynes Ser., 3 C.A.B. 294, Dec. 19, 1941; Eastern A. L. et al., Temporary Service to Huntsville, 3 C.A.B. 305, Feb. 23, 1942; American Airlines, Inc. Mexico City Operation, Docket No. 510, approved April 16, 1942.

inauguration of the services involved."[3] Relatively few cases have been found to meet this test. Indeed, as a result of the sale of additional transport aircraft to the Government and the operation of others in special contract service for the armed forces, the domestic airlines have been obliged to make substantial curtailments of schedules and to obtain the permission of the Board for the suspension of service to less essential points.

The decision in *American Airlines, Inc. Mexico City Operation, et al.*, Docket 510, decided April 14, 1942, is of interest in illustrating one phase of the operation of Section 801 of the Civil Aeronautics Act. That section provides that in the case of certificates to engage in air transportation outside the borders of the United States, "the issuance, denial, transfer, amendment, cancelation, suspension or revocation" of a certificate by the Board shall be subject to the approval of the President. The application in question was for a certificate to permit American Airlines to extend its operation from El Paso and Fort Worth—Dallas, Texas, to Mexico City via Monterrey, Mexico. The opinion of the Board dated April 14, 1942, states that a majority of the Board, with the Chairman dissenting, had decided that the application should be denied, that the Board's opinion proposing denial had been submitted to the President on February 20, 1942, but that the Board had been advised by the President that in the interest of war needs favorable consideration should be given to the application. The Board thereupon issued a certificate "to continue in effect until the Board shall determine that the need, in the interest of national defense, for the service has terminated."

2. *Mail pay.*

(a) *Retroactive reductions.*

Undoubtedly the most important problems to come before the Board during the past year have been the varied questions of power and policy arising from the proposal of the Board staff that the Board should reduce rates of mail pay as from a date prior to the date of the Board's order.

A brief explanation may clarify the nature of the problem. Under the Civil Aeronautics Act "mail pay" is to be fixed not only under ordinary standards as to fair compensation to the air carrier for services performed in transportation of the mail, but also, as stated in Section 406(b) of the Act, in the light of "the need of each such air carrier for compensation for the transportation of mail sufficient to insure the performance of such service, and, together with all other revenue of the air carrier, to enable such air carrier under honest, economical, and efficient management, to maintain and continue the development of air transportation to the extent and of the character and quality required for the commerce of the United States, the Postal Service, and the national defense." In other words, the mail rate is to include, in addition to a compensatory payment, such element of subsidy, if any, as may be required to permit the development of an adequate system of air transportation.

Before enactment of the Civil Aeronautics Act of 1938, most of the carriers engaged in domestic air transportation received rates of mail pay which had been fixed by the Interstate Commerce Commission under the Air Mail Act of 1934 (48 Stat. 933), as amended, while the air carriers engaged in overseas and foreign air transportation were paid under the terms of foreign air mail contracts let pursuant to the Foreign Air Mail Act (Act of March 8, 1928, 45 Stat.

3. See Letter from the Chairman, *supra* note 1, p. 2.

248, as amended by the Act of March 2, 1929), as these had been modified by voluntary agreement from time to time. The Civil Aeronautics Act provided that until the Board fixed new rates of mail pay under Section 406 of the Act, the Postmaster General should continue to make payment to the domestic carriers at the rates set by the Interstate Commerce Commission and that the foreign air mail contracts should be continued in effect. Section 406(a) empowered the Board to make the rates determined by it "effective from such date as it shall determine to be proper."

In several cases decided in 1939 and 1940, the Board had availed itself of this provision of Section 406(a) to order retroactive *increases* in rates of mail pay where it found that the mail pay fixed by the Interstate Commerce Commission or in the foreign air mail contracts was inadequate to accomplish the ends of the Act.[4] Until the Spring of 1941 there had been no suggestion, however, that this same provision might authorize a retroactive *decrease* in a case where increased non-rail revenues of a carrier, or decreased expenses, or a combination of the two, had resulted in the carrier's earning substantial profits. The problem became acute when, on June 19, 1941, an examiner's report was issued in *American Airlines, Inc. Mail Rate Proceeding,* Docket No. 334, recommending a substantial decrease effective as from December 1, 1939, when the proceeding was instituted.

The matter, which was of deep concern to the industry, was argued before the Board by counsel representing substantially all the other air carriers as well as by counsel for the particular carrier involved. The arguments covered the Board's legal power and the serious economic effects of a policy of recapture in some detail. However, in its opinion dated March 12, 1942, 3 C.A.B. 323, the Board, while recognizing the tremendous need for capital with which the air transport industry was likely to be confronted, nevertheless ordered even more drastic recapture than that which the examiner had recommended.

The *American* decision was felt to be a heavy blow to the industry—a blow all the more serious because of the disruption brought about by the war. When American Airlines filed an application for rehearing, reargument and reconsideration, the Board granted reargument and suspended the portion of its order relating to past rates pending further decision. Arguments were also had before the Board on examiners' reports recommending retroactive reductions of very sizeable amounts for Eastern Air Lines, Inc. and, in the international field, for Pan American Airways, Inc.

While decision on reargument in the *American* case has not been issued at the date of this survey, a very different point of view on the part of the Board was indicated in the "order to show cause"[5] issued under date of July 7, 1942, in Docket No. 716, subsequently confirmed in an opinion dated July 30, 1942, in connection with the mail pay of Pan American-Grace Airways, Inc., an international carrier.

In this opinion the Board found that, at least on the particular facts there presented, "a policy of retroactive rate reduction" would "reduce the carrier's

4. *Midcontinent Airlines Mail Rates,* 1 C.A.A. 45 (1939); *Inland Airlines Mail Rates,* 1 C.A.A. 155 (1939); *National Airlines Mail Rates,* 1 C.A.A. 259 (1939); *Pan American Airways Co. (Nev.) Transpacific Mail Rates,* 1 C.A.A. 385 (1939); *Pan American Airways Co. (Del.) New York-Bermuda Mail Rates,* 1 C.A.A. 529 (1940); *United Airlines Mail Rates,* 1 C.A.A. 752 (1940); *TWA Mail Rates,* 2 C.A.B. 26 (1940).

5. As to this "show cause" procedure, see *infra,* p. 137.

ability to perform the vitally important public functions imposed upon it by the Civil Aeronautics Act." It stated that:

> "A consideration of the obligations which the postwar development will impose upon the air transport industry, especially that part which operates in the international field, also pleads for a policy of precaution to avoid a weakening of our air carriers at a time when they will stand in greatest need of financial strength."

The Board accordingly concluded that "it would be economically unsound to enter an order which would reduce the rate of mail compensation paid to the respondent since August 22, 1939, and require a refund of the excess to the Government." However, the Board stated that it would expect the carrier to refrain from using for dividends the earnings received during the pendency of the proceeding in excess of 10% upon the investment, and that until the company attained "a commercially self-sustaining status," the Board would not regard the carrier "as entitled to earn a return upon that part of its investment which had its source in excessive mail payments."

(b) *Theory of rate making.*

The Board has also been concerned during the past year with the general theory to be adopted in fixing rates of "mail pay." The problem with which the Board is confronted is exceedingly difficult. A policy of simply permitting all carriers the same fixed return on investment would make no allowance for difference in the risks involved and also would present no financial incentive to a carrier to endeavor to increase commercial revenues or reduce expense. While there is some indication that the Board has attempted to grade carrier managements and reward carriers which it regards as particularly well managed by allowing a somewhat higher rate of return, the difficulty in appraising the relative quality of management in view of the different traffic potentials and operating conditions of the various carriers, and the necessarily subjective character of the judgment, render this method of dealing with the situation somewhat less than satisfactory.

In the *Continental Airlines* rate case, Docket 332, 2 C.A.B. 683, May 15, 1941, the Board appended to its opinion (p. 697) a note outlining two specific formulas for determining air mail compensation which were designed to meet these objections. The carriers were invited to comment upon these formulas, but the Board's action did not succeed in bringing about any real crystallization of opinion. In view of the great and unpredictable changes which the war has brought, it is probably fortunate that no set formula was adopted.

In the *Pan American-Grace Airways* case, the Board adopted rate of return upon investment as the controlling element in determining airmail rates for the duration, stating:

> "Under these conditions we conclude that during the war, and solely because of the conditions that war creates, the rate of return upon investment, which has heretofore been only one of a number of elements taken into account in determining the net operating income that it has seemed reasonable to anticipate in the setting of a mail rate for the individual carriers, should now become the primary and controlling element in that determination. We arrive at this conclusion, and give it effect in the present case, with explicit note of our anticipation that upon the conclusion of the

> war, or perhaps earlier if the war is prolonged, there should be a return to normal incentives to attract the greatest possible volume of commercial patronage and render the greatest possible commercial service; and in that future period the net earnings of such carriers as are in any degree dependent upon Government support should again be established to reward carriers that display exceptional initiative in increasing the volume of their service and in improving the relation between the volume of service rendered and the amount of capital employed. War time is a time apart, and its abnormal conditions require a departure from normal practices in the administration of section 406 of the Civil Aeronautics Act, as in everything else."

(c) *Other "mail pay" problems.*

In its annual report for 1941 the Board noted its concern with the problem of advancing costs with which the carriers were confronted and stated "that the problem of measuring and making proper allowance for increasing costs due to a rising price scale is rapidly becoming one of the major problems of the Board in the exercise of its rate-making function."[6] In its opinion in the *American Airlines* case, the Board made an allowance of a general increase of 2% in all expenses except depreciation to cover these rising costs.

The Board has fixed the mail rates generally in terms of so many cents per mile on designated mail schedules for carrying a specified load. Since costs do not increase proportionately with an increase in miles flown, the designation of additional mail schedules required a downward adjustment of the rate, whereas a curtailment of schedules would have an opposite effect. In *Braniff Airways, Inc., et al. Automatic Rate Adjustment,* decided April 27, 1942, the Board developed procedures for fixing a rate per mile for a certain average daily mileage with automatic variation in the rate with changes in average mileage. However, the curtailment in the schedules of the domestic operators, which has recently been required as a result of loss of equipment to the armed forces, has been so drastic that the Board has felt it necessary to have new proceedings initiated in respect to these carriers in order to survey the entirely different economic and operating conditions with which they are confronted.

An interesting question, on which the Board divided, arose in *Chicago & Southern Airlines, Inc. Mail Rates,* 3 C.A.B. 161, Nov. 14, 1941. At the end of 1940 the carrier had been granted a certificate authorizing the transportation of passengers, property and mail on a route between Houston and Memphis. it commenced operating this route March 1, 1941, but the route was not designated by the Postmaster General for airmail service until June 12, 1941,—the delay in the designation being due apparently to the Postmaster General's desire to present the matter to Congress to secure the necessary appropriations before designating the schedule. The question was whether the results of this operation should be considered in determining the rate of mail pay on designated mail schedules flown on other routes. The Board had previously decided that while payment could be ordered only for mileage flown on designated mail schedules, the results of the operation of non-mail schedules *on existing routes* which were required in the interest of the commerce of the United States or the national defense, should be considered in fixing the *rate* of pay for mail schedules. It was claimed, however, that a distinction existed between these cases and the inauguration of a new service in the face of a statement from the Post Office

6. Civil Aeronautics Board, Annual Report for 1941, p. 15.

Department that it was not yet able to designate schedules on the route for mail service. The Board declined to recognize any distinction.

In its mail rate decisions, the Board has, of course, been confronted with the question of depreciation rates, particularly on flight equipment. Because of the large proportion of the investment of the air carriers which is represented by flight equipment and the great importance of the obsolescence factor, this is a problem of the first magnitude. The Board has not instituted any general investigation on the subject of depreciation rates but through a process of decision has tended toward standardizing rates on certain of the types of flight equipment in general use. Thus, in a number of cases the Board has computed depreciation on Douglas DC-3 aircraft on the basis of a five-year life with a residual value of 20% of the cost.[7] Similarly, in several cases the service life of Wright G-202-A engines has been set at 6,000 hours with a residual value of 15%.[8] These service lives somewhat exceed those used in their accounts by most of the carriers involved. Most of the existing equipment is actually obsolete and would already have been replaced but for the war. While it is, of course, impossible under present circumstances to make any accurate predictions as to when existing equipment will actually be replaced, a policy of extreme conservatism in estimating service lives, particularly for units of equipment acquired within the last two years, would seem to be the part of wisdom.

The Board has also had to deal with the treatment to be accorded to capital gains made by the carriers as a result of disposing of flight equipment in the seller's market resulting from the war. The domestic carriers involved in the cases that have thus far come before the Board had accounted for these capital gains by crediting them against depreciation expense. Subsequent contention that the depreciation expense should be restated so as to eliminate this credit has not found favor with the Board, which has considered this capital gain as reducing the carrier's "need."[9] The question whether the Board would reach the same result in a case where the problem had not been obscured by accounting treatment of this character, is technically still open, although the Board's opinions to date indicate that the same result would probably be reached.

(d) *Procedure.*

The Board has also made an important procedural change in its handling of rate cases. Now that the Board has completed or is in the course of completing the initial cases for each carrier, the carriers' monthly and annual reports to the Board have become the chief evidentiary basis for mail pay decisions. In these circumstances, little purpose is served by an extended hearing with question and answer testimony. Under the Board's new procedure,[10] it prepares a show cause order on the basis of information in its files and such other data as the carrier may choose or be asked to furnish. The carrier is then accorded an

7. See *Pennsylvania-Central Airlines Mail Rates*, 1 C.A.A. 435 (1939); *TWA Mail Rates*, 2 C.A.B. 226 (1940); *Chicago & Southern Airlines Mail Rates*, 3 C.A.B. 161, 177 (1914); *Delta Air Corporation Mail Rates*, 3 C.A.B. 261, 277 (1942). In the *Pan American-Grace Airways* case, *supra*, the Board utilized the carrier's existing depreciation rates on flight equipment, which were slightly more conservative than those adopted in the case cited, but declined to approve the carrier's proposed rates which would write-off all DC-3s by the end of 1943.

8. *Chicago & Southern Airlines Mail Rates*, 3 C.A.B. 161, 177 (1941); *Delta Air Corporation Mail Rates*, 3 C.A.B. 261, 278 (1942).

9. *Chicago & Southern Airlines Mail Rates*, 3 C.A.B. 161, 171-2 (1941); *American Airlines, Inc. Mail Rates*, 3 C.A.B. 323, 344 (1942).

10. Rule 11 added to the Rules of Practice on January 8, 1942.

opportunity to present evidence and argument as to why the rates set forth in the show cause order should not be made effective. This procedure obviously requires for its success a full and candid statement by the Board in its show cause order as to the data used and the steps followed by the Board in arriving at the conclusion. The orders issued thus far appear to comply fully with this requirement.

3. Rates for the transportation of passenger and property.

In a decision dated January 6, 1942, 3 C.A.B. 242, the Board sustained with certain minor exceptions the so-called Air Travel Plan which permitted a 15% discount on domestic air transportation to business concerns complying with the plan, and also a tariff involving a 15% discount to the Federal Government. As a result of wartime conditions, the 15% discount feature of the Air Travel Plan has been withdrawn by the carriers.

4. Acquisition of control.

The Board has had a number of important cases under Section 408 of the Civil Aeronautics Act with respect to acquisitions of control of air carriers and persons engaged in other phases of aeronautics.

The Board in particular has been concerned with the final proviso of Section 408(b) to the effect that where the applicant is a carrier other than an air carrier, or is a person controlled by a carrier other than an air carrier, the acquisition shall not be approved unless the Board finds "that the transaction proposed will promote the public interest by enabling such carrier other than an air carrier to use aircraft to public advantage in its operation and will not restrain competition." In *Pan American Airways Company v. Civil Aeronautics Board and American Export Airlines,* 121 F. (2d) 810 (1941), the Court of Appeals for the Second Circuit held that the Board had jurisdiction in a case where a steamship company organized an airline subsidiary that was subsequently awarded a certificate—overruling the contention, which a 2-1 majority of the Board had accepted, that the statute did not apply either at the time of organization, because the subsidiary was not then an "air carrier," or at the time when the subsidiary became an air carrier, because there was then no acquisition.

In *American Export Airlines, Inc.—Acquisition of Taca, S.A.,* 3 C.A.B. 216 (1941), the applicant, a subsidiary of American Export Lines, Inc., a steamship company, applied for permission to acquire control of Taca, an airline operating entirely in Central America. The Board held that Taca, although not an "air carrier," was a person engaged in another phase of aeronautics within the meaning of Section 408(a) (3); that the statute applied in spite of the fact that all of Taca's operations were conducted outside the United States; that the final proviso of Section 408(b) was applicable although Taca was not an air carrier; and that since the record was devoid of evidence that the acquisition of a Central American airline would enable a transatlantic steamship company "to use aircraft to public advantage in its operation," the proposed acquisition had not been brought within the exception to the final proviso and must be disapproved.

In *American Export Lines, Inc.—Control of American Export Airlines, Inc.,* decided July 30, 1942, the Board directed that American Export Lines, Inc.,

divest itself of control of American Export Airlines, Inc. on the ground that the evidence did not bring the case within the exception to the final proviso. The Board held that "this proviso is extremely restrictive and only those limited air transport services which are auxiliary and supplemental to other transport operation, and which are therefore incidental thereto, can meet the conditions laid down by that proviso." The Board also held, contrary to its earlier decision, 2 C.A.B. 16, that it would give effect to this policy in certificate applications by surface carriers or their subsidiaries. In view of the apparently extensive plans of steamship and railroad interests to enter into air transportation, the decision in this case is of much interest.

5. *Judicial review.*

An important decision as to the scope of judicial review of orders of the Board was handed down on July 16, 1941 by the Court of Appeals for the Second Circuit in *Pan American Airways Company v. Civil Aeronautics Board and American Export Airlines, Inc.*, 121 F. (2d) 810 (1941). In this case, Pan American Airways had petitioned for the review of orders granting a certificate for transatlantic operation to American Export Airlines, Inc. and dismissing for want of jurisdiction the application of American Export Airlines, Inc. for approval of its control by American Export Lines, Inc. The Board moved to dismiss the petition for review for want of jurisdiction, claiming that as to both orders Pan American lacked the necessary legal interest and that as to the order granting the certificate, review was precluded because of the provision of Section 801 of the Act making a certificate to engage in foreign air transportation subject to approval of the President. The court overruled the contention based on lack of appropriate status to appeal and also conceded that both the subjects of the petition fell within the literal meaning of the judicial review section of the Act. However, it sustained the Board's contention that the order granting the certificate was not subject to review, for the reason that the order was in effect that of the President since "his necessary approval or disapproval makes him, and not the Board, the ultimate arbiter." As previously mentioned, the court held that the Board had erred in dismissing for want of jurisdiction the application for approval of acquisition of control, and returned this phase of the case to the Board for further proceedings. No petitions for *certiarari* were filed.

6. *Other war regulations.*

On December 18, 1941, the President created the Office of Defense Transportation with comprehensive control over all domestic transportation, including transportation by aircraft (6 Fed. Reg. 6725). To date, however, the Office of Defense Transportation has made relatively little exercise of its powers in connection with air transportation.

Under date of December 13, 1941, the President issued an executive order directing the Secretary of Commerce "to exercise his control and direction over civil aviation in accordance with requirements for the successful prosecution of the war as may be requested by the Secretary of War," and vesting in the Secretary of War, so far as concerned civil aviation, the power conferred upon the President by the Act of August 29, 1916, 49 Stat. 645, to take over part or all of any system of transportation necessary for the successful prosecution of

the war (6 Fed. Reg. 6441). Pursuant to this order, the War Department has set up a comprehensive system of control of priorities for t transportation of passengers and goods on commercial airlines; and the Civil Aeronautics Administration has authorized certain departures from air carrier operating specifications in the interest of the war effort. Arrangements have also been made for the taking over by the War Department of a large number of aircraft formerly engaged in commercial service and for the operation by the airlines of other such aircraft, although this has been done by agreement and without the necessity of resort to the powers conferred by the executive order.

AMERICAN BAR ASSOCIATION REPORTS, 1942:

STANDING COMMITTEE ON AERONAUTICAL LAW (ANNUAL MEETING, AT DETROIT, AUGUST 20, 1942)

RECOMMENDATIONS

1. That the committee be instructed to continue its study of the subject of civil aviation liability; to cooperate with the Civil Aeronautics Board and all other interested agencies in the development of appropriate legislation thereon, reporting to the Association with its recommendations as to the type and character of legislation which, in its opinion, the Association should sponsor;

2. That the American Bar Association approve Senate Bill 7 now pending in the United States Senate relating to aviation salvage at sea, with an amendment giving the Civil Aeronautics Board the discretionary power to relieve specified aircraft or the owner or operators thereof from obligation of assistance and for such periods of time as may be specified, not exceeding three years;

3. That the American Bar Association indorse the principle of an Act by Congress authorizing suits against the Government with respect to claims for damage or loss caused by aircraft operated by the Government or any of its agencies, or under its control and direction, and that the committee be instructed to continue a study of the subject with a view to formulating a bill incorporating the principles of the federal acts relating to public vessels of the United States (U. S. Code, Title 46, Sections 742, 781-2), and to present the same to the appropriate committees of Congress and urge the passage thereof.

1. Report

At the 1941 meeting, the Association adopted a recommendation of the former committee that the committee for the ensuing year be directed to make a special study of civil aviation liability in cooperation with the Civil Aeronautics Board, with a view to appropriate legislation thereon by the Federal Congress. Prior to the adoption of the uniform act on this subject by the Commissioners on Uniform State Laws in 1938, there was a joint committee of this Association, the Conference of Commissioners on Uniform State Laws and of the American Law Institute of which Mr. William A. Schnader of the

Philadelphia bar was chairman, which cooperated in the draft of a uniform act on the subject for submission to the states. The American Bar Association and the American Law Institute withdrew participation in 1938, but the Conference of Commissioners on Uniform State Laws in that year approved an act, which evidences much detailed study and consideration but which has not been promulgated, as result of request made by the Civil Aeronautics Board in order that it might have an opportunity to make its own investigation and recommendations on the subject. Since that time the Civil Aeronautics Board has caused an exhaustive study to be made as disclosed by what is generally referred to as the Sweeney Report, containing comprehensive factual and statistical data pertaining to all phases of aviation liability resulting from the operation of aircraft, commercial and for pleasure. It was anticipated that the Board would formulate and present to Congress its recommendations prior to this time but the advent of the war and other factors operated to delay its action and the Board has recently announced that, as result of the press of matters more directly related to the war effort, consideration of the subject was being indefinitely postponed, the intimation being that postponement would be for the duration of the war. The Government, except in a very restricted way, has grounded all private planes. It has, likewise, commandeered outright certain of the flight equipment owned by the air lines, some of which is being used for military purposes, flown and serviced by military personnel, while in other instances the equipment is being operated by the air lines under contract, with the operational control in the Army Air Forces. The remainder, although operated by the carriers on their regularly certificated routes, is subject to the imposition of a system of priorities which gives precedence to both personnel and material whose transport by air is deemed important to the war effort. These factors make it extremely unlikely that any legislation on the subject could get the attention of Congress at this time. However, this committee has endeavored to give thoughtful study thereto, anticipating that the time will come when there will be a real public demand for legislation of this type, and the American Bar Association should be in position to promptly and effectively assist in the formulation of appropriate legislation, if and when the opportunity arises.

It is the opinion of the committee that there is a distinct need for some type of aviation liability legislation, and that it should be initiated by the Federal Congress, although there are certain aspects which could very properly be left to the states, if not necessarily so. It is a controversial subject, however, and it will be difficult to formulate an act which will meet with the approval of all interests affected. The subject involves three main problems: (1) Procedural rules governing liability; (2) the measure of damages, and (3) the method by which liability may be secured. The question of whether legislation should incorporate the principle of absolute but limited liability with compulsory insurance, or whether ordinary common law principles of negligence should, without compulsory insurance, apply, or whether some standard between the two should be enacted, naturally invites controversy. The fact, however, that these problems are controversial and that there is a variety of opinion thereon should not operate as a barrier to any and all legislation on the subject. While there are those who believe that the law of air flight should be allowed to develop normally through litigation rather than by statutory enactment, if this course is pursued, it will in all probability result in a great variety of law on the subject with the inevitable effect of

confusion and uncertainty which always follows a conflict of laws. In addition, under present law, it often develops as an almost impossible task for the party having a claim to procure the facts necessary in order to assert that claim in law, and this alone is thought by many to afford a basis for applying a different rule of law to aircraft liability from that applied to other transportation agencies. It is the opinion of the committee that the existing situation will not be permitted to continue indefinitely and that following the war some type of legislation may be expected. The committee has not undertaken to arrive at a conclusion on the controversial aspects, preferring to make a further study and to get the views of all concerned before making definite recommendations, but with the thought in mind at all times that the interest of the American Bar Association is the public interest. It is accordingly recommended that the committee be instructed to continue its studies of the subject; to cooperate with the Civil Aeronautics Board, the Conference of Commissioners on Uniform State Laws and all other interested agencies in the development of appropriate legislation thereon, reporting to the Association with recommendations as to the character and type of legislation which in its opinion the Association should sponsor.

2. Aviation Salvage at Sea

At the 1941 meeting the Association approved a recommendation of the Committee on Admiralty and Maritime Law that it be given authority to take such action as deemed advisable to have enacted a law which would extend salvage principles to aircraft, its passengers and cargoes in trouble at sea, as if they were salvage services rendered in relation to a vessel under existing law. A bill has been introduced in the Senate of the United States by Senator McCarran, being S. 7. Its purpose is to enact into law the text of the Brussels Convention of 1938 relating to aviation salvage at sea and to which this country is a signatory. The bill has encountered some opposition from certain operators of trans-oceanic airlines upon the ground that there should be no fixed duty as to what an air pilot at sea should do upon an SOS appeal. A more flexible control would probably eliminate the objection by giving the Civil Aeronautics Board discretionary power to release aircraft on any route, or any specified aircraft or the owner or operator thereof, from the obligation of assistance for certain periods of time not to exceed, say, three years, if warranted by the circumstances and the public interest. It is the opinion of the committee that a proper system of salvage rewards which would encourage those in a position to do so to rescue aviation passengers or property in danger of loss at sea would be to the public interest. The Maritime Law Association of the United States has approved the above bill with the suggested amendment above and this committee recommends that the Association approve Senate Bill 7, with the amendment suggested, and that it be authorized to cooperate with the Civil Aeronautics Board, the Airline Pilots Association, the Air Transport Association, the Maritime Law Association and other interested groups in bringing about passage of the Act as amended.

3. Government Liability for Damage Caused by Aircraft in Government Service

In addition to aircraft transportation taken over and being operated by or for the benefit of the Federal Government, there is being continuously flown

over the United States large numbers of planes of different types employed in the Government service or by the armed forces of the United States in training programs and otherwise. Accidents naturally occur from time to time and as the service expands they will no doubt increase. These accidents occasionally result in damage to life and property on the ground and to civilians and others not engaged in the aircraft operation. As the Government is immune from suit, except by its consent, the only relief for the injured party is to appeal to Congress for a special act. A similar situation arose during and after the last World War as result of the greatly augmented merchant and naval vessels of the Government. The burden upon Congress became such that two general acts were passed—one in 1920, providing for suits against the Government for damage or loss sustained, if liability would have existed against the vessel if privately owned, in the district court of the district wherein the suing party resided or the vessel charged was found, and the other in 1925, providing that a libel *in personam* in admiralty might be brought against the Government, or a petition impleading the United States for damages caused by a public vessel of the United States and for compensation for towage and salvage services rendered public vessels of the United States, the venue being placed in the district court for the district in which the vessel or cargo charged should be found, if within the United States and if not, then in the district court of the district in which the parties suing resided or maintained an office and, if otherwise situated, then in any district court of the United States. (U. S. Code, Title 46, Sec. 742, 781-2.)

While special acts with respect to such claims are ordinarily a congressional prerogative which members of Congress may have a hesitancy in foregoing, affording as it does an opportunity to at times render a rather conspicuous service to a constituent, yet a flood of such requests and the time and attention necessary to give thereto in order to present the claim to the proper committees of Congress may become so burdensome that Congress would gladly be relieved of it. In any event, the public interest would seem to demand a more practical, expedient and accessible means by which a claim may be prosecuted than now exists. The committee feels that the United States district court, conveniently available everywhere, is the proper forum, the cases to be tried without the intervention of a jury. The proposal would seem to fall within the principle of an act now pending in Congress. President Roosevelt, in a message to Congress on January 14, 1942, recommended the enactment of legislation authorizing executive departments and independent establishments to adjust tort claims against the Government up to $1000.00, with review by the Attorney General of awards over $500.00, and that the United States district courts be given jurisdiction over claims of this nature up to $7500.00, with right of appeal to the Court of Claims. In his message the President called attention to the fact that the average number of private claim bills introduced in Congress was about 2000 per Congress and the time and expense involved in consideration of those claims made the wisdom of the present procedure questionable, particularly at a time when matters of great national importance demand an ever increasing attention by Congress and the President. It was stated that it would, likewise, make available a means of dispensing justice simply and effectively to tort claimants against the Government and give to them a day in court which certain other claimants against the Government now enjoy. In response to this message there was introduced

and passed in the Senate a bill carrying out the principles of the President's message—authorizing the administrative adjustment of tort claims up to $1000.00 and suits against the Government on claims not in excess of $10,000.00, but expressly exempting from the provisions of the act relating to suits against the Government all claims arising out of the activities of the military or naval forces or the coast guard during time of war. When the bill reached the House even the administrative adjustment provision regarding claims arising out of the activities of the armed forces was eliminated by the House Judiciary Committee and by a majority vote it recommended the passage of the Senate Bill with certain amendments, one of which was to make the bill in its entirety inapplicable to claims arising out of the activities of the military or naval forces or the coast guard during time of war. So the bill as recommended by the House Judiciary Committee leaves the situation as it exists at present with respect to the vast majority of claims which will arise as result of Government controlled or operated aircraft for the duration of the war. If there be any substantial reason why this distinction should be made between peace time and war time operation the House report does not so indicate. It is the opinion of the committee that there is considerable doubt regarding the passage of the pending legislation in any form. A substantial number of the House Judiciary Committee in a minority report vigorously oppose any legislation changing the existing order. While the present system has been the subject of criticism for many years and many bills have been introduced on the subject, only one has passed both Houses of Congress and that suffered a pocket veto by President Coolidge. The committee feels the more practical way to approach the subject is by separate act applying to aircraft operation alone in a manner similar to admiralty and maritime torts involving merchant vessels operated by the Government as before referred to. It is accordingly recommended that the Association indorse the principle of an act by Congress permitting suits against the Government in such cases, and that the committee be instructed to continue a study of the subject with a view to formulating a bill incorporating the principles of the aforesaid acts relating to public vessels of the United States and that it be authorized to bring the matter to the attention of the proper Committees of Congress and urge the passage thereof.

The committee submits herewith the tentative draft of an Act on the subject in compliance with the By-Laws of the Association but approval of the act in the specific form employed is not being asked. (See Appendix, page 38.)

4. United States Permanent American Aeronautical Commission

The committee is pleased to report that the President upon suggestion of the State Department and in line with the recommendations made by this committee and the Section of International and Comparative Law in a joint report approved at the 1941 meeting, has appointed the members of the United States Commission to function with the Permanent American Aeronautical Commission, generally referred to as CAPA (*Comisión Americana Permanente de Aviación*) set up in accordance with the resolution adopted at the first Inter-American Technical Conference held at Lima, Peru, in 1937. The terms of this convention have now been approved by seven American Republics, including the United States, and each signatory country is to name a commis-

sion to study inter-American aviation problems with a view to the coordination and development of international standards with respect to operational practices in general and the unification and codification of international law on the subject. The committee is advised that several South American countries have appointed their commissions, and is, likewise, advised that the United States' commission has about completed a study of such aspects of inter-American commercial aviation as might be susceptible of simplification and uniform treatment, that a report from the commission may soon be expected and, if approved, steps will be taken toward a realization of the program outlined. This program is regarded as an important phase of the war effort in the Western Hemisphere and the committee has tendered to the Chairman of the United States' Commission, Honorable Thomas M. Burke, Chief of the Division of International Communications, Department of State, its full cooperation and assistance in any matter coming under the jurdisdiction of the commission, and it is recommended that this action of the committee be approved.

MITCHELL LONG,
Chairman,
JOSEPH HARRISON,
ARNOLD W. KNAUTH,
H. GRAHAM MORISON, JR.,
WILLIAM ALFRED ROSE.

Appendix

Tentative Draft of Bill Concerning Suits Against the Government for Damage Caused by Government Operated Aircraft

(Caption and Enacting Clause omitted)

1. A suit *in personam* may be brought against the United States or against any corporation in which the United States or its representatives shall own the entire outstanding capital stock, or a petition may be maintained impleading the United States or such corporation, for damages caused by a public aircraft of the United States, or by any aircraft owned or operated by the United States, or by any corporation in which the United States or its representatives shall own the entire outstanding capital stock, or by any aircraft being operated under the direction and control of the United States or of such corporation, under circumstances where the United States if a private person would be liable to the claimant for such damage, loss, injury or death in accordance with the law of the place where the act or omission made the basis of the cause of action occurred.

2. A libel *in personam* in admiralty may be brought against the United States or a petition impleading the United States for a towage and salvage services, including contract salvage rendered to a public aircraft of the United States or to any aircraft owned by the United States, or by any corporation in which the United States or its representatives shall own the entire outstanding capital stock, or in the possession of the United States or of such corporation, or operated by or for the United States or such corporation, and to any cargo owned or possessed by the United States or such corporation.

3. Such suit shall be brought in the District Court of the United States for the District in which the aircraft or cargo charged with creating the

liability is found within the United States, or in the District Court of the United States for the District in which the parties so suing, or any of them, reside or have an office for the transaction of business in the United States; or in case none of such parties reside or have an office for the transaction of business in the United States, then in any District Court of the United States. The practice in all such cases shall be in accordance with the Federal Rules of Civil Procedure.

4. No interest shall be allowed on any claim up to the time of the rendition of judgment unless upon a contract expressly stipulating for the payment of interest.

5. No officer or member of the crew of any public aircraft or vessel of the United States may be supoenaed in connection with any suit authorized under this Act without the consent of the Secretary of the Department or the head of any independent establishment of the government having control of the aircraft or vessel at the time the cause of action arose, or of the commanding officer or master of such aircraft or vessel at the time of the issuance of such subpoena.

6. Suits shall proceed and shall be heard and determined according to the principles of law obtaining in like cases between private parties, provided that no jury shall be impanelled and every case shall be decided by a District Judge. A decree against the United States or such corporation may include costs of suit, and where the decree is for a money judgment, interest at the rate of four per centum per annum until satisfied, or at any higher rate which shall be stipulated in any contract upon which such decree shall be based. Interest shall run as ordered by the Court. Judgments and decrees shall be subject to appeal and revision as provided in other cases of civil or admiralty and maritime jurisdiction.

7. Neither the United States nor such corporation shall be required to give any bond or admiralty stipulation in any proceeding brought hereunder.

8. If a privately owned aircraft not in the possession of the United States or of such corporation is arrested or attached upon any cause of action arising or alleged to have arisen from previous possession, ownership or operation of such aircraft by the United States or by such corporation, such aircraft shall be released without bond or stipulation therefor upon the statement by the United States through its Attorney General or other duly authorized law officer that it is interested in such case, desires such release and assumes liability for the satisfaction of any decree obtained by the plaintiff or libelant in such cause and thereafter such cause shall proceed against the United States in accordance with the provisions of this Act.

9. Suits as herein authorized may be brought only on causes of action arising since (January 1, 1942) provided that suits based on causes of action arising prior to the taking effect of this Act shall be brought within one year after this Act goes into effect, and all other suits hereunder shall be brought within two years after the cause of action arises.

10. No suit may be brought under this Act by a national of any foreign government unless it shall appear to the satisfaction of the Court in which the suit is brought that said government under similar circumstances allows nationals of the United States to sue in its courts.

11. The Secretary of any Department of the Government of the United States or the governing authority of any corporation created by it or in which the United States or its duly authorized representatives and agents shall own the entire outstanding capital stock, having control of the possession or operation of any aircraft causing loss or damage resulting in claim therefor is authorized and empowered, by and with the consent and approval of the Attorney General of the United States, or his duly authorized Assistant, to arbitrate, compromise or settle any claim in which suit will lie under the provisions of this Act, either before or after suit brought.

12. Any final judgment rendered on any complaint or libel or cross-libel herein authorized and any settlement had and agreed to under the provisions of this Act shall upon presentation of a duly authenticated copy thereof be paid by the proper officer of the United States out of any moneys in the Treasury of the United States appropriated therefor by Congress.

13. The Attorney General shall report to the Congress at each session thereof the suits under this Act in which final judgment shall have been rendered for or against the United States or such corporation and the Secretary of any department of the Government of the United States or of any independent office, and the Board of Directors of any such corporation, shall likewise report the arbitration awards or settlements of claims which shall have been agreed to since the previous session and in which the time to appeal shall have expired or have been waived.

14. Nothing contained in this Act shall be construed to recognize the existence of or as creating a lien against any public aircraft of the United States.

15. This Act shall take effect on the day of its approval.

FEDERAL

C.A.B. TO CLEAR ITS CERTIFICATE APPLICATION DOCKET

The Civil Aeronautics Board announced September 3, 1942 that it would carry to decision all proceedings in connection with applications for certificates of public convenience and necessity for new airline routes or for the amendment of existing certificates of public convenience and necessity in which hearings have been completed. The Board issued the following statement as to the change in new route hearings policy:

"On December 12, 1941, the Civil Aeronautics Board announced that no further action would be taken in proceedings involving applications for new air carriers certificates of public convenience and necessity or for the amendment of existing certificates. Such action was taken in order that the immediate and maximum attention of air carriers and their personnel and of the Board, as well as of other government agencies concerned would be available for the most efficient discharge of the emergency demands growing out of the war, and that the new policy would remain in effect for such period of time as may appear to be appropriate in the light of existing conditions and their future development.

"Applications involving special considerations of national interest requiring early inauguration of the services involved were excepted and, since December 12, such applications have been handled on the basis of temporary authorizations. Rate cases were not affected.

"The Board has now determined to carry to decision those proceedings in which the hearings have been completed, and its staff has been instructed to confer with the parties and arrange for assignment of dates for the various steps which remain to be completed. At the same time, it has been decided to assign hearings and proceed to disposition of applications to include additional stops on existing routes, where no controversial issues were involved.

"Certificates issued will contain a proviso that the service authorized may not be inaugurated until national defense requirements have been met.

"Pending or new applications involving special considerations of national interest will continue to be handled on a temporary basis and, with rate cases, will be given precedence over other proceedings.

"The policy as announced on December 12 will remain in effect for all other cases until such time as the circumstances referred to make further relaxation of the restrictions appropriate."

INTERNATIONAL

COOPERATIVE WAR EFFORT*

Declaration by United Nations: A Joint Declaration by the United States of America, The United Kingdom of Great Britain and Northern Ireland, the Union of Soviet Socialist Republics, China, Australia, Belgium, Canada, Costa Rica, Cuba, Czechoslovakia, Dominican Republic, El Salvador, Greece, Guatemala, Haiti, Honduras, India, Luxembourg, Netherlands, New Zealand, Nicaragua, Norway, Panama, Poland, South Africa, Yugoslavia.

THE GOVERNMENTS SIGNATORY HERETO,

Having subscribed to a common program of purposes and principles embodied in the Joint Declaration of the President of the United States of America and the Prime Minister of the United Kingdom of Great Britain and Northern Ireland dated August 14, 1941, known as the Atlantic Charter.

Being convinced that complete victory over their enemies is essential to defend life, liberty, independence and religious freedom, and to preserve human rights and justice in their own lands as well as in other lands, and that they are now engaged in a common struggle against savage and brutal forces seeking to subjugate the world, DECLARE:

(1) Each Government pledges itself to employ its full resources, military or economic, against those members of the Tripartite Pact and its adherents with which such government is at war.

(2) Each Government pledges itself to cooperate with the Governments signatory hereto and not to make a separate armistice or peace with the enemies,

The foregoing declaration may be adhered to by other nations which are, or which may be, rendering material assistance and contributions in the struggle for victory over Hitlerism.

Done at Washington, January First, 1942.

The United States of America by FRANKLIN D. ROOSEVELT

The United Kingdom of Great Britain and Northern Ireland
by WINSTON S. CHURCHILL

On behalf of the Government of the Union of Soviet Socialist Republics
MAXIM LITVINOFF, *Ambassador*

National Government of the Republic of China
TSE VUNG SOONG, *Minister of Foreign Affairs*

The Commonwealth of Australia by R. G. CASEY

The Kingdom of Belgium by C^te. by R. v. STRATEN

Canada by LEIGHTON MCCARTHY

The Republic of Costa Rica by LUIS FERNANDEZ

The Republic of Cuba by AURELLO F. CONCHESO

*Department of State, Executive Agreement Series 236.

Czechoslovak Republic by V. S. HURBAN
The Dominican Republic by J. M. TRONCOSO
The Republic of El Salvador by C. A. ALFARO–
The Kingdom of Greece by CIMON G. DIAMANTOPOULOS
The Republic of Guatemala by ENRIQUE LOPEZ HERRARTE
La Republique d'Haiti par FERNAND DENNIS
The Republic of Honduras by JULIAN R. CACERES
India by GIRJA SHANKAR BAJPAI
The Grand Duchy of Luxembourg by HUGUES LE GALLAIS
The Kingdom of the Netherlands by A. LOUDON
Signed on behalf of the Government of the Dominion of New Zealand by FRANK LANGSTONE
The Republic of Nicaragua by LEON DE BAYLE
The Kingdom of Norway by W. MUNTHE MORGENSTIERNE
The Republic of Panama by JAEN GUARDIA
The Republic of Poland by JAN CIECHANOWSKI
The Union of South Africa by RALPH W. CLOSE
The Kingdom of Yugoslavia by CONSTANTIN A. FOTITCH

Declaration of Principles, known as the Atlantic Charter, by the President of the United States of America and the Prime Minister of the United Kingdom, August 14, 1941.

Joint declaration of the President of the United States of America and the Prime Minister, Mr. Churchill, representing His Majesty's Government in the United Kingdom, being met together, deem it right to make known certain common principles in the national policies of their respective countries on which they base their hopes for a better future for the world.

First, their countries seek no aggrandizement, territorial or other;

Second, they desire to see no territorial changes that do not accord with the freely expressed wishes of the peoples concerned;

Third, they respect the right of all peoples to choose the form of government under which they will live; and they wish to see sovereign rights and self-government restored to those who have been forcibly deprived of them;

Fourth, they will endeavor, with due respect for their existing obligations, to further the enjoyment by all States, great or small, victor or vanquished, of access, on equal terms, to the trade and to the raw materials of the world which are needed for their economic prosperity;

Fifth, they desire to bring about the fullest collaboration between all nations in the economic field with the object of securing, for all, improved labor standards, economic advancement and social security;

Sixth, after the final destruction of the Nazi tyranny, they hope to see established a peace which will afford to all nations the means of dwelling in safety within their own boundaries, and which will afford assurance that all the men in all the lands may live out their lives in freedom from fear and want;

Seventh, such a peace should enable all men to traverse the high seas and oceans without hindrance;

Eighth, they believe that all of the nations of the world, for realistic as well as spiritual reasons must come to the abandonment of the use of force. Since no future peace can be maintained if land, sea or air armaments continue to be employed by nations which threaten, or may threaten, aggression outside of their frontiers, they believe, pending the establishment of a wider and permanent system of general security, that the disarmament of such nations is essential. They will likewise aid and encourage all other practicable measures which will lighten for peace-loving peoples the crushing burden of armaments.

NOTES, COMMENTS AND DIGESTS

NEGLIGENCE AND RES IPSA LOQUITUR

This note is an addition to the article in the July, 1942 issue.

In digesting Galer v. Wings Ltd. (page 198) it is mentioned (page 202) that the action of another passenger in the plane referred to was awaiting judgment. Two other passengers in fact brought separate actions but proceeded to trial together before Mr. Justice Dysart of the Court of King's Bench for Manitoba. His judgment was handed down July 14th, 1942 (Nysted v. Wings Ltd.) and Anson v. Wings Ltd., (1942) 3 D. L. R. 336, (1942) 3 W. W. R. 39. On the same as was before Montague J. in Galer v. Wings, but with additional evidence, Dysart J. applied against the defendant the doctrine of res ipsa loquitur, as had Montague J. but found, contra to Montague J. the defendant's explanation did not rebut the inference of negligence and that, therefore, the defendant was liable.

The learned trial judge said that the law which governed carriers by air is the same as that which governs carriers by land or sea; he found that the defendant was a common carrier, and that the plaintiff was a passenger for hire.

In respect of the plaintiff's luggage, the defendant was held to be an insurer of the safe delivery of the goods at their destination subject only to acts of God and of public enemies, the learned Justice holding, that this was an absolute liability followed from the fact that the defendant was the bailee as well as the carrier of the goods and so was responsible for their safe delivery.

In respect to the plaintiff's themselves, it was held that the defendant was not an insurer of their safety; that its duty towards them was to exercise adequate care in all that pertained to the sufficiency and operation of the vehicle; to carry them with all necessary care and that what constituted adequate care in each particular instance depended upon the cirmcumstances and could not be declared in any precise terms.

Then, as to burden of proof the learned trial judge as already indicated, held that the doctrine of res ipsa loquitur should be applied. The facts of the case were set out in some detail in reporting Galer v. Wings Ltd. (page 198-202). In brief, the defendant's aeroplane had only taken off the ground (in this case ice) and reached a height of about seventy-five feet when one of the propeller blades broke causing the engine to be torn from its fastenings and the plane fell to the ice in flames.

The accident happened on the morning of April 10, 1936. Near the end of the return flight, a considerable distance, on April 8th, the plane developed roughness, a term meaning the vibration of an aeroplane in any of its parts. Roughness may be caused by improper ignition, irregular flow of fuel, loose or cracked or broken parts of the engine and looseness or cracks in the propeller.

Every aeroplane has a certain amount of normal vibration with which an experienced pilot soon becomes familiar but it is the unusual roughness that is significant. One effect of roughness would be to increase the strain and jar upon the propeller. The roughness found on the return journey mentioned caused the pilot to suspect the propeller. He had flown the same plane for the six weeks previous to this time. He reported the roughness to the defendant's chief engineer and suggested that the propeller be checked. The chief engineer adopted the suggestion and had the propeller shipped to a local agent of the propeller manufacturers with particular instructions to look out for anything which might cause roughness and to remedy the same. He also gave instructions to his own staff of mechanics that the other parts of the aeroplane be checked for anything which might cause roughness. This latter was done and a complete new set of spark plugs was installed. Then before the agent of the propeller manufacturers could complete their checkup they were asked to confine the same to a check-up as to pitch and balance. They suggested a thorough check-up but were informed by an agent of the defendant that the propeller was needed for immediate use. Therefore, knowing nothing of the recent conduct of the propeller, they accordingly confined the check-up to pitch and balance, making minor corrections. The propeller was then again mounted on the aeroplane, which was flown sixty miles to another point. On this trip roughness reappeared and the pilot again reported the roughness both to the chief and to the local engineer. There was then a further general check-up of the plane and a ground test and subsequently an air test. On this air test roughness was still noticed. These check-ups, as the court found, were more than routine check-ups, and suggested that trouble existed and could not be located. The next morning the plane took another trip and its pilot on its return reported that roughness still persisted. Again the plane was subjected to inspection; the propeller was loosened and a thorough search was made for cracks in the shaft, hub and other parts of the same as well as in and about the engine and its fastenings. The court found that clearly cracks were suspected. Then, although the workmen did not seem to be wholly satisfied, without any air test, the plane set out on the journey which ended in the crash. From the time the roughness first appeared on April 8th till the crash on April 10th, the plane was flown approximately 600 miles which would require three or four hours of actual flight. The roughness was only intermittent and did not persistently recur. The defendant contented that the roughness must have been due solely to engine trouble, as distinct from propeller trouble, a contention which the trial judge found not convincing. There was another ground for suspecting this propeller. The blades were of a type which had been discontinued. The shape thereof caused undue strain upon the shank. Still further grounds for being particularly watchful of this propeller was the fact that aluminum alloy blades, as were the blades in this case, were widely known to have a tendency to develop cracks in operation. The court particularly commented on the absence of an air test before the final flight.

The court rejected the contention of the defendant that the defect if any, was a latent defect, finding that expert examination and analysis had set this question at rest; that the metal was of uniform quality throughout and free from defects of quality or manufacture.

As already indicated the court found first that the onus had been shifted to the defendant, and then that the defendant had not rebutted the inference of

negligence and was, therefore, liable. It is understood that the Galer case and the two now reported, all three arising out of the same accident, will come under review by the Provincial Court of Appeal.

In reporting the results of the trial of Malone v. Trans-Canada Air Lines it is mentioned (supra 204) that on review the Court of Appeal for Ontario dismissed the appeal of the defendant. The reasons for judgment on this appeal are now reported (1942 O. R. 453 and 1942, 3 D. L. R. 369). Two actions, Malone v. Trans-Canada Air Lines and Moss v. Trans-Canada Air Lines were combined at the trial and on the appeal. The trial, it will be remembered, was before jury. The questions submitted to and the answers given by the jury are set out at page 204. The husbands of the respective plaintiffs were paying passengers in the defendant's aeroplane which at night while making a routine landing at a specified air port, crashed, all passengers and all members of the crew being killed.

The plaintiff alleged negligence on the part of the defendant, workmen, servants and agents. To establish negligence they relied upon the maximum of res ipsa loquitur. Giving judgment for the Court of Appeal, the chief justice for Ontario said that the defendant's trans-continental passenger business was extensive and highly organized and well equipped, that it had regular schedules and daily carried many passengers long distances, and, almost invariably, in safety, that landing at air ports to discharge and take on passengers, for refueling and other purposes is a mere incident to this extensive business, that travel by aeroplane must now be regarded as a common means of transport, extensively used, and that with an experienced and careful pilot, proper equipment, the passengers have the right to expect that they will be carried in safety to their destination. The evidence had shown that the aeroplane used on the occasion in question was of high class workmanship, that it was regularly inspected and that it was in good condition during the flight which with other landings had occupied some hours. The landing in question was not being made because there was any emergency arising between air ports. Weather conditions, while wintery, were not abnormal, and were similar to conditions prevailing on the night before, when a landing was made at the same air port without difficulty. After departure from its last landing the aeroplane had been flying at an altitude of 8,000 feet. On approaching the airport this had been somewhat reduced in anticipation of landing. As the aeroplane, still high in the air flew over the airport and over the radio station which was some distance to the west of the port (the plane was coming from the east) there was no indication to the observers on the ground that there was anything wrong or unusual. The aeroplane proceeded, as was customary, for some distance west of the radio station, before turning to make its landing into the wind. The radio operator at the port had been in telephone communication to the pilot and had given him the usual information as to visibility and the direction and velocity of the wind. There was nothing said by the pilot suggesting any trouble either with himself or with the aeroplane or any anticipated difficulties in making a safe landing. Witnesses say that they heard the motor of the aeroplane as it passed over the airport going westerly and later after it had turned and was headed back towards the east, and that it sounded normal. At intervals they also saw the lights of the aeroplane, falling snow prevented a constant view of the lights. Then one of the witnesses sud-

denly saw a white light falling rapidly which he took to be the tail light of the aeroplane. He took the compass bearing of the falling light from the place where he stood and he said that the bearing he then took was not far off the course in which the wrecked aeroplane was later found. The evidence of those who saw and examined the wreck was that the aeroplane engine had been running and that the propellers had been revolving up to the time of the crash. Nothing was found, after close investigation, to indicate that the crash was due to any defect or failure in the aeroplane itself or in any of its parts. There was no ice on the wings. The barograph with which the aeroplane was equipped, and which records altitude was said by the defendant's witnesses to indicate that a distance of some 800 to 1000 feet above the ground there had been a precipitous descent of the plane as though it had dived or fallen. Evidently this precipitous descent did not continue to the ground. The aeroplane before it reached the ground travelled some short distance in a north easterly direction over and through the tree tops before it crashed. The trailing antenna of the aeroplane was found hanging from the top of the trees. A little farther on, twigs and branches from the trees were found broken. Still farther on the trunk of two trees had been broken off some distance from the tops. Again still farther was found one of the wings of the aeroplane which had been torn off apparently by a tree, and all of this before the final crash. The defendant's witnesses said that the aeroplane was at this time travelling in a horizontal position although steadily and rapidly coming to earth, and that at most it could have been a matter of seconds only from the time of the precipitous fall till the actual crash to the ground occurred. The court said that it might be a reasonable inference that for that brief a time there had been some degree of control, or recovery of control. The court also found that the course on which the aeroplane travelled among the tops of trees would not have taken it to the runway where the landing was to be made.

The learned chief justice in giving the reasons for judgment for the court of appeal pointed out that the above facts did not all appear in the plaintiff's case but were mainly from the evidence of the defendant's witnesses. The defendant had not asked for a non suit at the trial but had proceeded to call witnesses' evidence. The learned chief justice indicated that in any event, in his opinion, there could have been no non-suit "for the principle of res ipsa loquitur applied, and there was a case for the appellant to explain." And then added "the question whether it did so successfully was for the jury."

The court then considered the trial judge's charge to the jury. Dealing with question 1 (page 204) the appellant court found that the jury had not been properly instructed on the question of the burden of proof and that, therefore, the answer of the jury to the first question would not of itself support the judgment for the plaintiff, and that if this was the only finding for the plaintiff, then the defendants were entitled to a new trial on the ground of misdirection. Dealing with the second question the appellant court found nothing unfair towards the defendant in the charge to the jury and that the jury had drawn only reasonable inferences in arriving at their answers to the second and third questions; that it could not be said that the evidence was of a character which had left no grounds for reasonable inference of negligence; that its witnesses did not attempt to account for the accident nor to attribute it to any specific cause. They had suggested a number of things which might have caused it, as,

for example, some latent defect in the machine; "fatigue" of somt part; physical collapse of the pilot; some atmospheric condition. These were, however, little, if anything, more than a recital of the various things that may happen but rarely do happen and that of none of them was there anything outside the accident itself to suggest its presence here. There was also evidence that the operation of landing requires great skill and care on the part of the pilot. One of the dangers is that in maneuvering to come properly to the runway, the pilot may take too short a turn and "stall" his aeroplane and a sudden dive is apt to follow. The court said that it was impossible to say that the jury could not, on the evidence, have found as they evidently did, that the appellant had not given any reasonable explanation of the crash and that the proper inference was that the cause was the appellant's negligence.

Dealing particularly with the third question, it was contended by the defendant that the answers thereto could not be supported by the evidence. As to this the appellant court said that in a case where res ipsa loquitur applies, it would seem improper to require that the plaintiff make out such a case as would enable the jury to answer such a question. The court said "The plaintiff does not know in what the negligence consisted," and, added "if the defendant knows he probably will not tell". In concluding, the court said that giving to the jury's answer to the third question that fair and liberal interpretation in the light of the evidence and of the circumstances, there was a sufficient finding of negligence that was supported by the evidence, that the negligence, if there was negligence, on the part of the pilot, consisting in getting his aeroplane into a position of danger from which he could not extricate it and that from the jury's answer to question 3 could be taken the meaning that the pilot had allowed the plane while in his charge to get too low. Whether the decision will be further reviewed, that is by the Supreme Court of Canada or by the Privy Council remains to be seen.

The decision of the Supreme Court of Canada in the Ludditt case, (page 205) and of the Provincial Court of Appeal in the Quebec Airways case, (page 206) are still awaited.

B. V. Richardson, K.C., LL.B.,
Winnipeg, Manitoba

BOOK REVIEWS

A BIBLIOGRAPHY OF AVIATION MEDICINE. By Ebbe Curtis Hoff and John Farquhar Fulton: Charles C. Thomas, Springfield, Illinois and Baltimore, Maryland, 1942. Pp. 237. Prepared for the Committee on Aviation Medicine, Division of Medical Sciences, National Research Council, acting for the Committee on Medical Research, Office of Scientific Research and Development, Washington, D. C.

Our hat is off to the authors and compilers, the publisher, and the sponsors of this remarkable book. An added bow goes to the printer and designer of the volume, respectively, The Collegiate Press of Menasha, Wisconsin, and Reinhold Frederic Gehner.

The preface very aptly begins: "Aviation literature falls sharply into two categories, that dealing with the man and that with the machine. Naturally, the primary emphasis in the past has been placed on technological developments of aircraft. But these have now reached the point where the stresses imposed on flight personnel tend to limit further development of aviation. The performance of modern combat airplanes in range, ceiling and manoeuverability has so seriously taxed the human element that a new field of study has arisen which, for want of a better term, has been designated Aviation Medicine." The authors could have said this about most types of modern aircraft.

Employing this logical spring-board the book classifies and catalogs 6,029 entries beginning with Robert Boyle's "New Experiments Physico-Mechanicall, Touching the Spring of the Air, and its Effects," first published in 1660, down to current items through May 31, 1942. Only titles having medical, physiological and psychological significance and implications are included, after a painstaking search of aviation literature in general as well as that having an obvious direct connection with aviation medicine. Texts, bibliographies, odd papers, and some eight hundred journal files were examined. This included the foreign literature, with French, German, Hungarian, Japanese, Polish, Portuguese, Rumanian, Russian, Spanish, and Yugoslavian translations involved. The entries resulting from this monumental tracing are classified in the following order under divisions entitled:

History and General Aspects of Aviation Medicine; The special Physiology of Aviation and Conditions Simulating Flight; The special Pharmacology of Aviation and Conditions Simulating Flight; Aeromicrobiology (Bacteriology and Immunology in Aviation and High Altitudes); Diseases and Accidents in Aviation and Conditions Simulating Flight; Selection and Assessment of Efficiency of Flight Personnel; Training, Performance and Fatigue of Flight Personnel; Protection of Flight Personnel. Preventive Medicine and Therapeutics of Aviation; Aviation and Public Health (Sanitary Aviation); Organization of Aviation Medicine; Special Problems; General Studies in Aviation Medicine; and Bibliographies. Then follows divisions giving the key to abbreviations of journals, handbooks, and volumes cited, and indices to authors and subjects. These, as well as the table of contents, are noteworthy for their completeness and ease of use. Finally, each entry has a key number, and the page-range of key numbers is indicated at the top of each page.

This Bibliography of Aviation Medicine must be seen, examined, and used to be fully appreciated. This reviewer, in charge of the preparation of the Civil Air Regulations in 1937 and their adaptation for the new Civil Aeronautics Administration in 1938, would have regarded this volume as an indispensable tool. It should be as highly rated by present and future regulatory agencies, civil and military, by air carriers and other flying enterprises training flight personnel, by aviation lawyers, and of course by practitioners and researchers of aero-medicine. The only adverse criticism is the failure to provide for publication of supplementary bibliography. The present work lends itself perfectly, and the rapidly growing literature justifies it.

Howard C. Knotts.

INTERNATIONAL AIR TRANSPORT AND NATIONAL POLICY, by Oliver J. Lissitzin, (New York Council of Foreign Relations, 1942)

Daily the war is proving the destructive power of aircraft—a promise which a few years ago led some aviation enthusiasts to advocate the further development of aircraft as a guaranty of peace. But, the war is demonstrating also the real potential of the airplane

as a means of transportation and communication. Strategic bases have been won by air-borne troops; critical raw materials are arriving in ever increasing amounts on aircraft returning from carrying food supplies to people otherwise dependent upon surface shipping; military and governmental leaders rely upon air transport for regular and expeditious exchange of confidential communications; and combat forces in distant theaters require it for the delivery of essential personnel and material. The post-war use to which these newly recognized talents of air transport may be devoted and their possible effect upon our future national policy are so profound that no longer is the future of aviation the dream of a barnstorming pilot or a visionary aeronautical engineer, but the concern of our national leaders and of every one interested in our international relationships.

This study by Mr. Lissitzyn is particularly timely. He was one of the Council's Research Fellows, and served as the secretary-rapporteur of the Council's Study Group on this subject in 1939-1940. The book reveals an exhaustive analysis of the factors which have led to the development of the principal airlines of the world; at the same time focusing attention on the problems to be encountered in the future development of international air transport and provoking consideration of the effects of expanded international air transport operations. One well might ask with respect to the future, "Is international air transport the cause or the effect of national policy?"

Mr. Lissitzyn emphasizes the fact that the development of air transport may influence our international relationships by contributing to the formation of a few highly centralized states of semi-continental or continental size and by eliminating or minimizing the effect of national boundaries. International tension between such great empires will increase the military aspects of transportation and intensify its governmental control. Under such conditions, there is little stimulus to a principle of "freedom of the air." The concepts of the Atlantic Charter would be completely displaced in the effort to maintain a balance of power, and the military and political aspects of air transport would be in the ascendancy. Until, in effect, there is a world order where boundaries are retained chiefly for taxing or policing purposes, it seems unlikely that the concept of "freedom of the air" will be accepted.

Mr. Lissitzyn early asserts that "a sound national air transport policy must be contained within the framework of the general poli-

cies of the nation. National interest in the narrowly commercial aspects of aviation is overshadowed by the importance of air transport as an instrument of national policy—economic, diplomatic and military. . . . The frank admission of military and political motives in national air transport policies in the last few years will serve to clarify public thinking on that subject." Proof of this national interest lies in the policies of the governments with respect to subsidies, and the operation of existing international routes. National prestige, colonial possessions, national propaganda, cultural influences and diplomatic and military competition, have more often dictated decisions with respect to international air transport than have the commercial results which might be derived from their operation. As a consequence, the author believes that the *policy* of state participation ("station") has been to subject air transport to more rigid governmental controls than any other form of communication or transportation. This national interest, which has dictated the *policy* of governmental control, when coupled with the financial obligations assumed by Governments in the establishment and maintenance of international air services, has naturally led to an *extension and development* of the direct participation of the Government ("statization") in the ownership and management of those air transport enterprises.

After summarizing the arguments which have caused direct Government participation in most of the large airlines of the world, Mr. Lissitzyn points out that American-flag companies have remained in the hands of private owners, and concludes, "Their continued purely private character would seem to depend, aside from the fate of the United States in general, upon their readiness to cooperate with the Government of the United States in carrying out certain policies, upon their prospects for eventual self-support, and upon their preserving, in spite of dependence upon governmental assistance, the spirit of initiative and progress for which American aviation has always been noted." No one acquainted with the facts would suggest a contrary conclusion.

Proponents of monopoly in American-flag international air transport will receive little comfort from Mr. Lissitzyn's writing, except as its advocates may be willing to accept direct government participation in ownership and management with the resultant increased governmental control. Competition from foreign operators provides little incentive, and its benefits are not available to the United States; neither competition from other forms of transportation nor government regulations will give standards of comparison, competitive

incentive to aircraft manufacturers, or benefits of a military and political character. There would seem to be no alternative, then, to American flag competition, in any one of a number of forms—direct paralleling of services, services on alternate routes between the same traffic centers, or "regional" monopoly.

In developing his thesis of the national interest—economic, political, military, and diplomatic—in international air transport, Mr. Lissitzyn accurately and concisely traces the history of the world's principal airlines. It is at once the most complete and best documented record of international air transport yet to be presented in a single volume. Statistical tables and maps need little explanation from the text, and they are taken from reliable source materials, though one might question the pertinency of a few of his comparisons. Finally, he has included an excellent bibliography of source reference-materials which is a valuable asset to anyone working in this field. There has been a paucity of research upon this subject in the past. Some of those who have attempted it have become dismayed. Mr. Lissitzyn's study fills a real need; his results constitute a valuable addition to any library of aviation, transportation, or international relationships.

SAMUEL E. GATES.